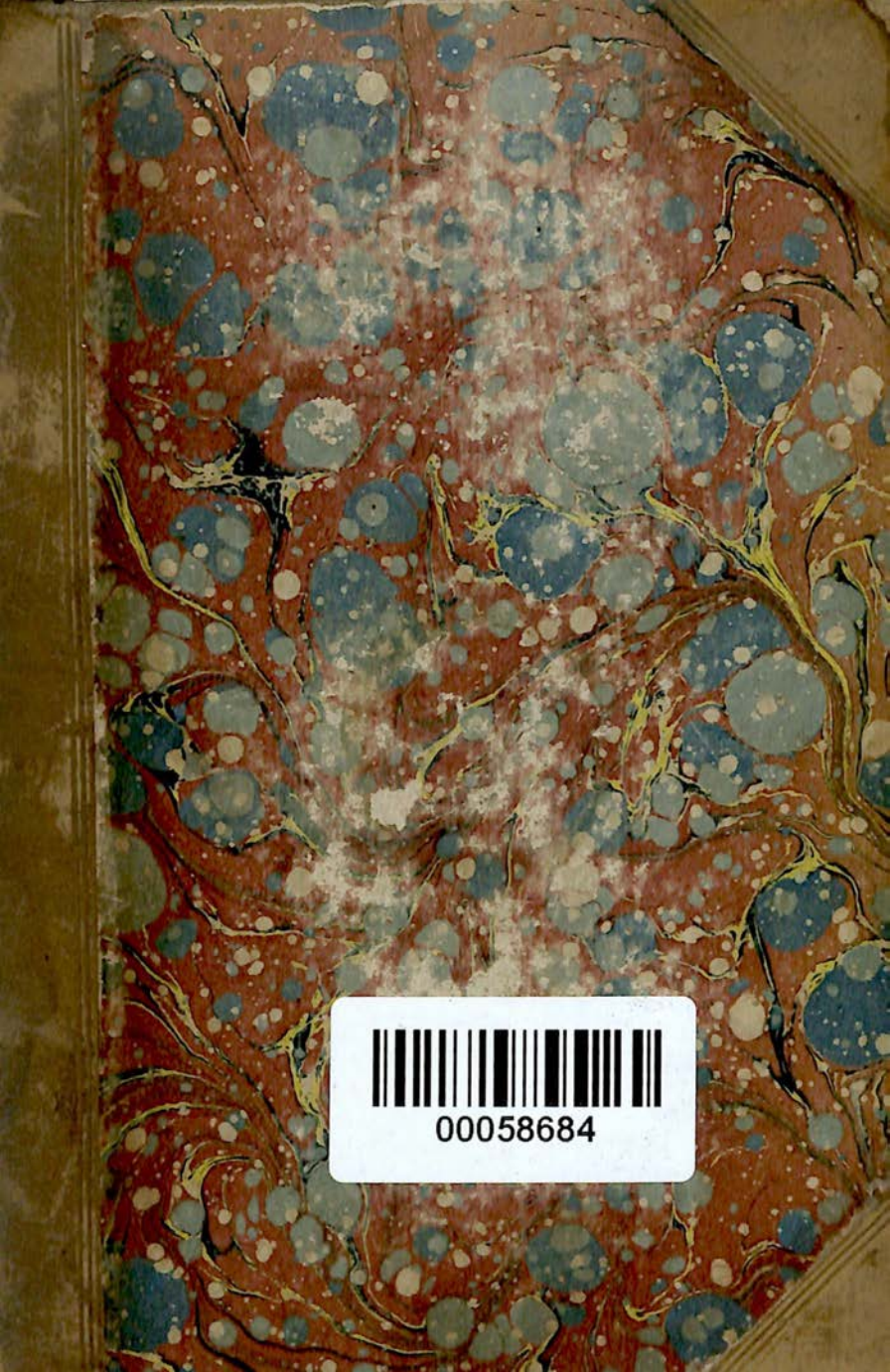
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THE

FORTUNATE ISLES;

OR,

THE ARCHIPELAGO OF THE CANARIES.

58684

BY E. PÉGOT-OGIER.

TRANSLATED FROM THE FRENCH BY FRANCES LOCOCK.

IN TWO VOLUMES.—VOL. II.

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THE FORTUNATE ISLANDS

&c.

CHAPTER I.

DISEASES--ELEPHANTIASIS.

'GENTLEMEN,' said the Canadian, as he sipped his coffee, 'this Havana tobacco is perfect. The cigars are certainly dear, but they do not belie their reputation. Nothing but havanas are smoked in the Canary Islands; every passing ship provides itself with tobacco and cigars there. The *picado* is excellent, full of aroma and flavour.'

'You are right; the *picado* is the king of cigars.'

'For my part,' said Brünner, 'I cannot understand how you can smoke that dust: it is as dry as the sand at Lanzarote; it gets into your throat, and no Christian could ever fill a pipe with it.'

'You are right as regards a pipe; but why should they cut tobacco for pipes when no one uses them in this country any more than in Spain?'

'As for me,' said Krauss, 'I never can make cigarettes; the paper is too narrow, and the tobacco too short; but I

have some mild cigars: try them—you will be delighted with them.'

We each took a cigar, and assumed an attitude suited to our tastes. The Canadian seated himself on one chair with his feet on the back of another; Brünner adopted a horizontal position, Krauss leant his elbows on the table. The Canadian, whose conversation was interrupted by immense puffs of smoke, said:—

'The Canaries are certainly the Happy Isles; are you aware that the term of human life is very long here?'

'That is contrary to scientific teaching. Is it not acknowledged that in hot countries vitality is more quickly exhausted than in temperate climates, and do not cold countries afford the most numerous examples of longevity?'

'Yes, that is true as a rule; but there are many exceptions, and we must bow to proofs. I have been to the hospital to-day; it is very well managed, and——'

'A hospital is always well managed for a visitor,' said Brünner; 'the rooms one goes through are models of cleanliness; work is over by the time visitors are admitted; they show nothing but what they are not ashamed of; luxury even is sometimes displayed, while necessaries are wanting, and then——'

'My dear Brünner,' said Krauss, 'you are really unbearable; you doubt everything; you believe nothing you are told; really one would believe you had made up your mind beforehand.'

'I tell you, it is the same thing everywhere. Hospitals are perfect in the afternoon; but if you could see them

at seven o'clock in the morning! Do you know the history of the hospital of the Invalides? No? Well, here it is. At the time of the Revolution, out of 900 inmates, 600 were coachmen or footmen belonging to great houses, who had never seen any fire but a kitchen fire, and were brought in by their masters' influence. That is one side of the question. In another French town they found at the hospital 250*l.* worth of expensive wines, of which half was champagne, under the pretext of having wine for the convalescents! Do you want any more facts?'

'You are right,' said Krauss; 'one must always give in to you, for there is no arguing with you. We have hospitals in Germany——'

'To be sure you have—numbers; lunatic asylums especially.'

'Hush!' said the Canadian, 'I am going on.' The mortality in Teneriffe amounts only to 1 in 38 patients a-year, according to the statistics given me: in the hospital at Nice, 1 in 31; in Milan, 1 in 28; in Rome, 1 in 25; in Montpellier, 1 in 35; in Madeira, 1 in 39.'

'Madeira, then, is healthier than Teneriffe?'

'Yes; but in Gran Canaria the numbers are in 1 in 41, which makes it even.'

'It seems certain, according to the doctor who took me er the hospital, that all diseases assume in these Islands peculiarly mild character which renders them less distressing to the patient.'

'Yes, that is the result of an insular position, in the smaller Islands at all events; where the land is surrounded and bathed by the sea, there must be an evenness

of temperature which scarcely ever heightens morbid affections; it must also be remembered that everything is on a milder, more subdued scale in islands than in continents; it is one of their characteristic features.'

There are very few in the Islands crippled or otherwise deformed from their birth, but a great many deaf and dumb. The American method of curing stammering has not been tried: this neglect is unpardonable. Diseases of the eye are common, and the Islands contain a great number of blind persons, as you may see in the statistical returns.

Slight attacks of rheumatic gout are common among the wealthier classes. Intermittent fevers are entirely unknown, except among the sailors who contract them abroad, for there are no marshy exhalations, ponds, or stagnant waters in the Islands.

Pleurisy and similar serious disorders only attack that class of people who work hard in the open air and take no precautions.

Colds and bronchitis assume an epidemic character immediately, like influenza, but are never dangerous. Typhoid fevers are much milder than they are anywhere else: insanity is very rare. It is to be observed that children, with very few exceptions, are very little subject to infantine disorders, and when attacked by them resist them better than elsewhere. Croup is not common.

There are hardly any cases of hydrophobia. The doctor maintains that there has never been a case at the hospital. Nervous disorders are far less uncommon in the Canaries than in Madeira—the result, probably, of a drier, more

exciting, and more tonic air. Hysteria is certainly known there, but of a very moderate type. It attacks the richer classes almost exclusively, and is attributable in a great degree to the sedentary life they lead.

Ringworm and similar diseases are very common, but they have greatly diminished during the last ten years. The kind of tick which in Brazil and Madeira gets beneath the skin of the fingers or toes, and spreads over the whole body, is unknown in the Canaries. Many of the skin diseases which attack the lowest classes are entirely owing to their utter want of cleanliness; a little attention to hygienic laws would cure them. The cure would be still more complete if the material well-being of this class, which has considerably improved, were aided by education; ignorance, neglect, and prejudice, are now the only causes of these diseases.

The prevailing diseases, especially among the upper classes, are those of the stomach, liver, and digestive organs—diarrhœa, dysentery, and even dropsy. All these are complicated by bilious fever. It is a disputed point among the local physicians whether the bilious mucous fever is epidemic at certain times in Teneriffe; it has certainly been so in some places. Contrary to ordinary experience, the labourers cannot withstand these maladies; a fatal termination is far more common among them than among the upper classes: this fact is hard to explain.

There are no endemic diseases in the Islands. Epidemics are very uncommon, and not serious; mild disorders only, such as influenza, assume an epidemic

character. The terrible maladies of yellow-fever, Asiatic cholera, and the plague, are unknown, in spite of daily maritime intercourse with the West Indies, especially, through Cuba.

But the Canary Islands have their scourge—elephantiasis. 'This malady,' said Mr. Goatbeard, 'deserves special study, for it is happily unknown in Europe. Wait until to-morrow.'

'Will that be as amusing as what you have been telling us?' said Brünner.

'Very nearly,' said the Canadian, coolly.

Krauss was asleep; the young American was yawning to the peril of his jaws; I was writing.

The next evening, Brünner slipped away after coffee. This is what Mr. Goatbeard told us about elephantiasis:—

Elephantiasis is a disease which presents itself under two forms; the first is called Arabian elephantiasis, because it was described by an Arab physician, Rhases; the second, Greek elephantiasis, because it was described by a Greek physician, Aretæus. The disease is called elephantiasis because the legs of the patient swell so as to resemble those of an elephant.

The first, called Arabian elephantiasis, is characterised by a swelling of the skin and subjacent tissues. It attacks the legs chiefly. It is neither hereditary nor contagious. It is endemic in Barbadoes, Japan, India, and Egypt. Its causes have been sought unsuccessfully: the principal symptoms are these:—swelling and reddening of the skin along the course of the veins; fever ensues, and leaves after successive attacks, varying in their frequency of

return, an endematous induration of the tissues; gradually the hypertrophy of the skin and subjacent tissues spreads over the leg (it rarely attacks both legs at once); then follows the scirrhous induration of the skin, which becomes cracked. The patient's only discomfort arises from the weight and size of the limb affected: the disease lasts to the end of his life, and is not complicated by any disturbing symptoms. Amputation has been tried; when successful, the other leg has been soon attacked.

The second kind, called Greek elephantiasis, is that which generally prevails in all the islands off the coast of Africa. It was formerly endemic in Spain, Portugal, and even in Provence, Brazil, and Paraguay. This kind of elephantiasis is a tubercular leprosy, sometimes called *leontiasis*, because the patient's face resembles that of a lion. It was known in ancient times, and may be affirmed to have been the leprosy of the ancients, if we may affirm anything in medicine.

Greek elephantiasis is characterised by tubercles—soft, not much raised—at first red, afterwards livid, which break out on the ears, nose and whole face, which thus becomes horribly disfigured. The sense of touch, voice, sight, and smell, are all affected, and hypertrophy of the skin ensues. Finally, the tubercles crack and ulcerate, and are covered with scabs, which afterwards turn to scars.

This disease is undoubtedly hereditary, but not invariably so. All the African colonies and islands, and the negro population of the continent are subject to it. The causes of this frightful malady have been sought in vain.

Stagnant water, pork, salt fish, farinaceous vegetables, have all been suggested. Diet, undoubtedly, has a great effect on the ordinarily very slow progress of the disease, but cannot produce it.

It has always been found that this disease is generally confined to particular localities where it seems to thrive. For instance, while there is no case of elephantiasis in several parishes in Madeira, one parish alone—Ponta da Sol—furnishes more than half the total number of cases in the whole Island. There is nothing to distinguish this parish from others, whether as regards climate or position; and in Ponta da Sol the diet of the patients is the same as that of those who escape. The fact of concentration arises partly, no doubt, from constant intermarriages, which prevail more in the mountains than in the plains.

Elephantiasis is not an incurable disease, using the words in their widest sense. It has been known to last only a few months, or a few years, and then to disappear all at once; but the doctors have not attempted to claim the honour of these recoveries.

It used to be believed that this fearful disease only attacked the poor; but it is now known to attack the rich also. This, however, is very rarely the case.

Pliny tells us that it was unknown in Italy before the time of Pompey the Great, when the first case was observed. Lucretius in his poem affirms that the disease had not reached Europe, but remained in Egypt. In Book iv. he says:

> 'Est elephas morbus qui propter flumina Nili
> Gignitur Ægypto in media, neque præterea nusquam.'

Avicenna, Rhases, Avenzoar, Fuchsius, Sevestus, &c., have given detailed accounts of elephantiasis.

All attempts at curing it by medicine have but very rarely succeeded, even for a time; patients may recover in books, but they always die in the hospitals.

Sulphur internally, mercury externally and internally, and sulphur baths, are generally used. Alibert, who has devoted a great deal of attention to cutaneous diseases, has advocated turtle soup and the flesh of the turtle as exclusive diet, with baths of hot sand. This mode of treatment has had no results.

The only remedy appears to be change of air. As the patients are so poor, very few experiments have been made as regards this mode of treatment, which was found out by means of some sailors. It would, however, be very easy to try it, at first from one island to another, from Canaria to Madeira, or from hospital to hospital. It would involve no expense beyond the journey, and Spain and Portugal might, in default of elephantiasis patients, send their consumptive patients to Madeira or Teneriffe in exchange.

The diseases appear to be in some degree similar. In the Islands it has been proved that tubercles on the face do not necessarily imply tubercles on the lungs. Nevertheless, in France, medicine teaches that tubercles of a certain kind follow the disease. In the Islands there has not been a sufficient number of experiments made to prove anything on the subject. Since change of climate and expatriation undoubtedly have an immense influence on tubercular phthisis, as well as on the tuberculisation

of the sub-cutaneous tissues of the face, there may very possibly be some connection between these two tubercular affections. The absence of cases in Europe has, it is true, rendered much study of the subject impossible, and medical study in the Canary Islands and East and West Indies is incomplete. But if there could be an exchange of patients established between the hospitals of Europe and these Islands, European doctors would then be led to study the subject, and might make some discoveries. Such an exchange would be easier than may be imagined. There is communication twice a month between Madeira and Teneriffe and Liverpool; twice a month with Lisbon, twice a month with Cadiz, and once a month with Marseilles and Barcelona. There would be no danger in the exchange, for neither malady is contagious.

Hot countries are not the only ones ravaged by this terrible disease. It prevails on the coasts of Norway and Lapland, between 60° and 70° N. lat., but less intensely than in equatorial regions. In Europe, with very few exceptions as regards Arabian elephantiasis and one or two cases of Greek elephantiasis, it is unknown between 40° and 55° N. lat. America is not so privileged.

To return to the Canaries. All elephantiasis patients from all the islands are shut up together in one hospital in Gran Canaria. Can the disease be thus stamped out? It is probable; but better living must also be tried, and change of air is indispensable.

The lazaretto in Gran Canaria has always contained a great number of patients, from the first century of the Conquest. It was established on a large scale at Las

Palmas, and was managed in a singular manner. Father Sora ('Topography of Gran Canaria,' 1668) says naïvely that those who entered it never left it. He tells us that there were priests and laity, men and women, in it. Very few patients were excused from entering the hospital; if families did not wish to go there, they were shut up in the lazaretto, in separate cells. Patients in the hospital were allowed to marry. The lazaretto was governed by a royal ordinance, the king appointing an officer whose duty it was to govern and *chastise* the patients; 'which was quite right,' says Sora.

We may indeed say with Father Viera, that though the Islands may be Fortunate, there is a terrible reverse to the medal. Between 70 and 75 out of the 350 to 400 patients die every year in the hospital of San Lázaro in Gran Canaria. Viera piously adds that we must acknowledge the justice of the expression by which the Catholic religion designates this world as 'a vale of tears!'

A great discussion has been raised, as to whether modern elephantiasis be the same as the leprosy of the middle ages. Some say yes; some no. Who shall decide? This question has only a fictitious importance from the discussions which have been raised; it has none in itself. If it can claim any interest at all, it is in an historical point of view.

The leprosy of the middle ages was widely spread. It raged everywhere, and with such violence that in 1250 the order of St. Lazarus had 19,000 establishments or lazarettoes. In Lombardy its ravages were frightful, and

in Piedmont it was nearly as bad. Attempts have been made to prove that this disease was brought from the East by the Crusades. But Charlemagne, who was not in the Crusades, published edicts with regard to leper-houses which still exist. Didier, King of the Lombards, had also taken precautionary measures against the evil fifty years before, in the eighth century.

About the year 1700, the disease began to decrease considerably; and out of ten patients in the hospitals from Vienna to Holland, from Madrid to Berlin, only one was a leper. About the middle of the eighteenth century, leper-houses disappeared from Europe.

Among the Jews the leper was banished from both town and camp, and driven into the wilderness; this was the custom also in Persia and Asia. In France, in the middle ages, directly a leper was discovered, he was seized, the funeral service was read over him, and he was taken to the lazaretto or leper-house. If—as, alas! was frequently the case—there were no room for him, he was dressed in a special garb, with a bell round his neck and another in his hand (a rattle in certain provinces), and left to wander about the country until he died either of his disease or from hunger and misery. He might neither give away nor sell; if he had any property, he could touch the income of it only; he could neither make a will nor inherit. Civilisation gradually did away with these absurdities.

What was this leprosy? Scientific men described it as a kind of scaly eruption, of circular spots, healthy in the centre, but surrounded by scales which constantly fell off

and re-formed. The spots were first grey, then copper-coloured, which gave rise to the distinctions of white and black leprosy. These are not the distinguishing signs of elephantiasis; and as there were cases of Greek elephantiasis in Holland in the sixteenth century—for Grig-Horst, a Leyden physician, gives a long account of it, in which he describes the tubercles, the tubercular affections of the nose and ears—accompanied or followed by scaly pustules, it is evident that there was no resemblance between the two diseases.

Isabella the Catholic lived for more than a year without change of linen, in fulfilment of a vow for the conquest of Grenada! Francis I. washed his face—occasionally; Henri Quatre wore no stockings, and wrote, 'Come and console the Béarnais, who has not taken off his boots for a week!' Louis XIV. wetted his fingers every morning—with a damp towel. We may judge from these instances what the state of labourers, soldiers, and the religious orders was likely to be. (These furnished their contingent of elephantiasis patients in the Canary Islands.) We may add that the price of linen was then excessively high, and that the peasants in Champagne not a century ago ate grass to avoid dying of hunger. To such extremities did the institutions of the age reduce men. This state of things was remedied in Europe by civilisation, sanitary precautions, cleanliness better food, and cotton. Comfort, the fruit of labour, will purge the African islands from this horrible disease; already the people are more energetic—they are 'applying themselves to agriculture, and are rapidly becoming more

prosperous; the majority already enjoy more than ease—they have health and wealth.

Work is the grand panacea, both physical and moral. It cures leprosy, and ignorance and superstition as well. From the easy circumstances resulting from work, man will acquire, together with health, the dignity which will one day enable him to walk among his equals, having no longer any tyrants to dread, with head erect,—the head which God made in His image, but which, through misery, neglect, servility, idleness, superstition, absolute kings, wars, priests, and vermin, has been changed into the *face of a lion.*

It is possible that the traveller, on arriving in the Islands, and learning that elephantiasis prevails there, may be alarmed at the idea of contagion and of the horror and disgust produced by the mere sight of the disease. Let him re-assure himself. These unhappy people live and die in Gran Canaria. They are never seen. If there are any who are allowed to remain in their own homes, they carefully avoid being seen.

Chapter II.

LOCUSTS.

Locusts and the *levante*, Krauss informs us, are the two plagues which Africa sends the Islands. From the centre of the African deserts winged legions spread over Algiers, Morocco, Egypt, the Mediterranean islands, Spain, and the French coast. These myriads of insects, heaped and entangled together, are driven by the wind in all directions and carried to immense distances. To give some idea of this, it will suffice to say that clouds of African locusts have reached the West Indies, 4,500 miles off, necessitating an aërial voyage of a fortnight, during which they devour each other. So it is supposed, although it is possible to keep an African locust alive for twenty days in a glass bottle without food.

Navigators have sometimes found shoals of locusts drowned in the sea, either because part of the cloud had lost its power of resistance through exhaustion, or from the action of the winds precipitating an immense number of the locusts on the sea, which swallowed them up. Other navigators have seen the sky darkened, and clouds of locusts overhead, driven by the wind.

'In Canada,' said Mr. Goatbeard, 'we sometimes see in

spring clouds of butterflies of the family of *Hesperiadæ* advance, carried off by the winds from the wet forests and thrown into the sea.'

'I don't understand anything about science, and I think all this a great bore,' said Brünner.

'I dare say you do. You are just like the cockchafers, that don't understand natural history,' said Krauss.

Brünner was silent, and Krauss continued:—

These voracious animals which the Bible tells us formed one of the plagues of Egypt, when they have once spread over the surface of the land, devour everything—grass, the bark of trees, linen, cloth, leather; and nothing can satisfy the terrible appetites of these winged hosts.

Directly the cloud alights on a shore, or stops at the foot of a mountain, the locusts remain stationary, warm themselves, smooth their wings, sharpen their instruments of destruction, and often remain for a whole day in a state of astonishing torpor and insensibility. It would then be easy to destroy them; but their landing-places are never known, and their presence is often only discovered when they are seen in full possession of their powers, taking flight, rushing on the crops, and devouring everything. These animals, whose small size preserves them from destruction, are armed in a formidable manner.

The locust is an insect belonging to the order of *Orthoptera* and the genus *Acridium* of the section *Saltatoria*. The scutellum covers the wings; they have two antennæ, two eyes, head vertical, prothorax narrow, abdomen vesicular in the female; the hind legs are much longer than the fore legs. The shrill sound they make

is produced by the male, by the friction of his thighs against the elytra (wing-sheaths). The female deposits her eggs by hundreds in the ground, and the larvæ are wanting only in wings and elytra.

The locust is a pretty insect, with a pinkish tinge on the wings; this is the distinctive mark of the African locust. The European locust is usually green.

The deserts of Africa, Tartary, and Arabia are the most extensive receptacles of these insects. According to Bouillet, crops have been set on fire in hopes of thus forming a barrier against locusts; the African negroes do this.

This, gentlemen, is what I have to tell you with regard to the African locusts, of which I have a dozen specimens preserved in spirits of wine. The largest are about an inch and a half long. Lionel will give us some details to conclude this sketch.

'Are not the showers of frogs,' said Brünner, 'produced by winds which carry them like the locusts from the borders of marshes to a great distance?'

'You know nothing about it, my dear Brünner. There never have been any showers of frogs. Storms will bring out of the ground myriads of a particular kind of frog, very common in Switzerland, the *Bufo crepans minimus*, which lives in the ground, a fellow countryman of yours.'

'Really, Krauss, you are worthy of being a German; you know everything.'

'Not quite; I am learning.'

We called these gentlemen to order, and Lionel read as follows:

The first historical tradition of ravages committed by locusts in the Islands goes back to the beginning of the sixteenth century, 1507, at Hierro. Viera says that God being pleased to send this scourge, S. Augustine was chosen by the inhabitants as their advocate to plead against the locusts. An annual holiday was founded at the parish church for the delivery of the island from this plague.

But neither the holiday nor S. Augustine produced any result, for the locusts still appear from time to time.

In 1588, Juan Muñez de la Fuente, the Governor, called out all the peasants in the night, to kill, bury, and burn these devastators.

In 1607, the number of locusts was so great that the Governor, Don Fernando de Benavides, brought the Madonna de la Candelaria to Laguna, to put an end to the calamity. As this was not enough, S. Placidia was chosen advocate, in addition to S. Augustine, but the evil went on notwithstanding.

On October 15 and 16, 1659, the cloud of locusts was so great that it covered nearly the whole of the island; the crops, the fruit, the vines, all were devoured. The locusts were so numerous that they even attacked the aloes, which had hitherto remained untouched owing to the bitterness of the juice. After that they ate the bark of the trees which they had already stripped of leaves; finally, they devoured each other. Under such circumstances, man recognised his own helplessness. Father Viera tells us that the inhabitants went in procession, scourged themselves, fasted, did public penance, made

vows; but all in vain. The work of destruction only came to an end with the locusts, after two months.

In 1680, the people went to war with them! The militia were called out, they marched by companies, preceded by drums. They killed millions of locusts—with no apparent result.

Numerous royal ordinances were issued for the destruction of the locusts, under the three forms of eggs, larvæ, and locusts. The eggs are buried; for the larvæ they make a kind of long drag net with string and grass; when enough are caught, a circle is traced round the spoil, and net and larvæ are burnt together. Some animal is placed in the centre of the net, so as to attract the larvæ to one place. In order to catch the fully developed insect, it is necessary to wait until night, and to be preceded by a herd of pigs. The locusts are then digesting and sleeping, and can be taken. They are put in sacks, and then buried in the ground at a depth of five or six feet: otherwise, the exhalations from so many dead creatures would create a pestilence.

Locusts' thighs are excellent in flavour, and very wholesome; they form quite a dainty dish among orientals, who store up locusts, salt them, and keep them for months to guard against chances of famine.

The only powerful hindrances to these creatures are natural phenomena, such as tempests, particular winds, and violent rain; millions are destroyed in this way. Foxes, pigs, birds, and frogs eat a great many.

There are some winds the currents of which are irregular in height and velocity, which carry these animals

more than others; in order that these currents should seize on them, these countless legions must be raised into the air, either by cyclones or waterspouts. The manner in which they are raised has not as yet been discovered, nor has the formation of the winged cloud. Africa will some day reveal the secret.

'Is the Algerine locust the same kind as that found in the Canaries?' asked Goatbeard.

'Exactly,' answered Krauss, 'the only difference results from the difference of season; the lapse of a month or two will change the colour and size; the migratory locust is known by the name of cricket, whether it come from Tartary, Arabia, or Africa.'

'For this evil, there is only one remedy; let the poor man become rich enough to be able to lose the whole or part of his crops.'

'Why should there not be an Insurance Company, as there is for hail?'

'It has not been thought of. The scourge is rare, and people always hope to escape.'

'Last year,' said Krauss, 'Algiers was ravaged by locusts; they were in a great measure the cause of the famine, mortality, and horrible crimes.'

'Do you think that the locusts caused all these evils?'

'If Algiers were free and self-governed, like Canada, I assure you that no one would die of hunger there, even in years when the locusts devastate the country. With us——'

'With you, my dear American,' said I, 'there are no Arab bureaux! there is no standing army!'

'Well,' said Brünner, 'do leave off writing down our conversation for a little while, and give us your opinion.'

'Gentlemen, every day I lengthen my list of things which I don't talk about; this is one of them: he whose list is the longest is the greatest philosopher. However, if you want my opinion, I say: what can't be cured must be endured—locusts, the ravages of time, the injustice of governments, the folly of the governed, in short, every evil.'

'To-morrow morning at six o'clock we will start for the Garden of Acclimatisation,' said Lionel. 'Krauss will be in his element there.'

Chapter III.

THE GARDENS OF ACCLIMATISATION.

Towards the end of the last century, a native of Teneriffe, Don Alonso Nava Grimon, Marquis de Villanueva del Pardo, a distinguished writer, a modest savant (a rare combination), a liberal patrician, and a passionate lover of the Islands, conceived the idea of forming there a Garden of Acclimatisation which should, in accordance with the ideas of that time, supply Europe with exotics. He was convinced that a more or less prolonged stay in the Islands would enable them to live and flourish in Europe, although they might die if taken there at once without any transitional stage. This was called acclimatisation. The word took. The idea once admitted, in no other place so near Europe it was said could the plants of the torrid zone be so easily acclimatised as in Teneriffe; seeds and plants might be sent thence to temperate climates; they would become acclimatised there, and the undertaking would be crowned with success. Vain hope! After eighty years' experience, this gradual acclimatisation is proved to be a delusion. Nevertheless, all the learned men who visited the Gardens between 1795 and

1820, and they were many, believed in the realisation of the problem, and applauded the undertaking.

It was the fashion, too, and every one knows the power of fashion.

We know what a vehement cry of 'Let us go back to nature!' was raised by the philosophers of the last century. The study of natural history was carried on so vigorously, facilitated by the Linnæan system of classification and the various works of the great naturalists of the time, and spread so rapidly that even in Spain, where no one read at that time, and where so few read even now, 20,000 copies of 'Buffon' were sold in ten years; the work was admirably translated by Clavijo, a Canary Islander, who carefully annotated it, correcting the author when necessary. Delille wrote, drew, and made gardens, even in Poland. The French school of Le Nôtre was abandoned by the Court, Queen Marie Antoinette deserted cold, melancholy Versailles for the English Trianon. In Spain, the Court laid out the wonderful gardens of Aranjuez, La Granja, El Pardo, and San Ildefonso. All the little German sovereigns who had ruined themselves in order to make gigantic Versailles in their Lilliputian principalities, now ruined their subjects for the sake of making English parks and gardens of Armida.

'Let us go back to nature!' Such was the cry of that half of the century, a violent reaction, which the too formal grandeur, the conventional beauty, symbolism, allegory, all the bombast of the preceding age, naturally produced. Although we owe a great deal to this return to nature, such as the introduction into Europe of 4,000

different species, the settlement of physical zoology, scientific expeditions in search of various floras, the discovery of geology, and the computation of tides, yet it must be confessed that enthusiasm was carried so far as to become folly. Naturalism, through Robespierre, invaded politics; that ascetic priest, a bouquet of flowers and corn in his hand, led the National Convention to the altar of Nature, at the very moment when the Marquis de Villanueva was making the Garden of Orotava.

There was but one voice in Europe with regard to the Garden of Acclimatisation. From all parts, during the first ten years of its existence, the most remote specimens were sent, and the Marquis carried on a world-wide correspondence.

Alas! it was but a happy dream, only too short-lived; the first successful trials of acclimatisation proved deceptive. This must necessarily have been the case. Let us enter somewhat into detail, and let us hope that the inhabitants of Orotava and the Islanders in general will not mistake our motives. Indiscriminate praise is the surest means of preserving some friends, but if this go against the conscience, it is better to follow the old saying: *Amicus Plato, sed magis amica veritas.*

Experiments were made immediately, and plants sent to Madrid. *Not a single one which flourished would have done so if sent there direct.* On the other hand, those which died have never been able to be cultivated there. They laid this result to the climate of Madrid. Plants and shrubs were sent to Seville and Barcelona, with the same negative result. Although we cannot positively prove

that similar experiments were made in other parts of Europe, we think, nevertheless, that every probability is in favour of such a belief, for we know that all the European savants were in correspondence with the Marquis. The ambassadors of all the Powers congratulated the Court of Spain on the undertaking,—an honour which it little deserved, as we shall presently see. Plants and seeds were sent to Orotava from Paris, the Hague, Austria, England, the Cape, Australia, and America. The Marquis in return was to send to Europe the products of the torrid zone which he had grown. The fact that plants were sent to Madrid, Barcelona, and Seville, being proved, we may be permitted to suppose that experiments were tried in other countries besides Spain. Some deception must have been practised on the subject, for we hear nothing of it.

'What I can affirm,' said Krauss, 'is that all the species which are or have been cultivated in Orotava, are cultivated quite as successfully in the Mediterranean between Nice and Cannes, and in the Riviera of Genoa. In certain spots even where what are called hothouse plants grow to a larger size in the open air than at Orotava, northern shrubs also flourish, which at Orotava, with the exception of pines, languish or die. It is true that the Canarian flora contains more than one hundred indigenous species, some of which would be well worth cultivating in Europe, either for their form or flowers, or as medicinal plants; but in that case it is useless to cultivate them in the Gardens in order to send them thence to Europe, the simpler plan would be to transplant them at once, and

such plants would be sure to succeed in Sardinia, the Balearic Isles, Cannes, and even in Andalusia, in spite of the varieties of temperature.'

'Is not the equality of the mean temperature between two countries all that matters?' said Lionel.

'By no means; it has been said, re-said, and printed hundreds of times, that the mean temperature of the Gardens is 22° centigrade; and from this numberless random conclusions have been drawn, which, however, prove nothing, not even that the Gardens stand on the finest spot in the world, as they have attempted to prove. A mean temperature proves nothing; for instance, the mean temperature of Moscow is very high, the summer heat being so great as to counterbalance the winter cold. It is not the *mean* but the *extremes* of temperature which we require to know. At Funchal, Malaga, and S. Kitt's, there is less variation of temperature than in any other part of the globe. The temperature of Funchal is relatively very low in summer, 2° lower than at Orotava, while it is 2° 7 higher in winter. Besides, the constant moist heat of Funchal, even in summer, is most favourable to the growth of plants; the vegetation of Funchal is much more luxuriant than that of Orotava. At Malaga the temperature is nearly the same as that of Orotava; but it is less exposed, being sheltered from all winds between N. and S.S.W. I cannot say anything about S. Kitt's, never having been there.'

'In your opinion, then, Funchal, Malaga, and S. Kitt's, would be preferable to Orotava?'

'You have quite misunderstood me,' replied our young

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naturalist. 'I do not pretend to say that the soil and climate of Orotava are unfavourable to the cultivation of plants. I meant that Orotava is no better than other places; but I own that there is very little difference between its qualifications and those of Malaga, Funchal, and S. Kitt's. Setting aside the mistaken idea of acclimatisation, I think that botanical gardens, containing nearly every species of animal and vegetable, might be made at Orotava as well as in two or three other islands of the Archipelago. There are great differences between the islands; and thanks to the different heights of the mountain ranges in Teneriffe, the table-lands of different heights in Gran Canaria and Palma, and the plains of Lanzarote, every kind of animal can live in the Archipelago, and every kind of plant grow there under favourable circumstances.'

'Still, the question of utility remains,' said the Canadian. 'Taking for granted that useful animals and plants can be acclimatised in the Islands, still there would only be a local use for them. The Islanders may increase their prosperity by the cultivation of new plants; they may become more wealthy by introducing new animals; let them do so, they have the right, but they must no longer flatter themselves that they are privileged to send to Europe races or species which cannot live there when transplanted directly from their homes. Such an illusion should now be dispelled.

'Real acclimatisation, in the strict sense of the word, is a difficult thing, both as regards animals and vegetables. Man himself, the being above all others capable of modifi-

cation according to climate, who has laid both nature and art under contribution in order to make himself less susceptible to variety of climate, man even could not live in zones greatly varying from his birth-place if he were left to himself like plants and animals without the help of science and commerce. Even with the aid of these, men do not become acclimatised without great suffering.'

'Very true, it is proved by emigration statistics. The mortality among emigrants in the healthiest countries is 7·43 higher than the average mortality in the mother country.'

'Not only is that the case,' added Mr. Goatbeard, 'but it is a fact that even among the emigrants who survive in inhabited countries, healthy, and favourable to acclimatisation—Buenos Ayres, for example—acclimatisation is very gradual; its effects are not appreciable until after two, sometimes not until after four generations, and after repeated intermarriages with natives. Without such intermarriages the newly introduced race does not seem capable of becoming thoroughly acclimatised. Before you have spent a couple of months in Peru, for instance, you can easily distinguish, after the lapse of 200 years, a French Creole from a Spanish Creole, even though there have been intermarriages with other races: it is the same in Canada. Even after ten generations what a difference there is between the Creoles and the native races! You may see it in Mexico; the *Indio* is strong, active, energetic; the Creole weak, slow, lazy, in spite of three centuries of acclimatisation. Thus, then, although mankind have at their disposal the whole of nature and their accu-

mulated knowledge and conquests, they can only acclimatise themselves so far as not to die in healthy climates. But if we enquire into the degree of acclimatisation attained by man in Sierra Leone, Fernando Po, Cayenne, Panama, India, the Timor Islands, the mortality is something fearful, and life is full of suffering. The English have reduced the time of service to a few years; the children of Europeans die there if not sent to Europe. In short, we may say that God made white men, negroes, and copper-coloured men to live in different countries, and made different plants for different countries as well.'

'You are right,' said I: 'in Bathurst, on the Gambia, out of 153 Europeans, 41 died last year—in one year!'

'And animals are still more difficult to acclimatise, since they can only partially participate in the advantages man enjoys. With plants, it is different; as Krauss says, it will always be impossible for any species to flourish in London, for example, which, not being able to live if transplanted there *at once*, should go through a period of acclimatisation at Orotava or anywhere else. The difference between the extremes of temperature would alone prevent it. On an average of twenty years the difference does not exceed 12° centigrade at Orotava, 10° at Santa Cruz; while in Paris and London it exceeds 40°. To those who still believe in the possibility of acclimatisation, by means of an intermediary climate, it may be objected that Orotava is all the less suitable for such experiments as its differences of temperature are so trifling.

Nor is this all. Those plants and animals which live

when transplanted, for example, to London or Paris, do badly, die young, and exhaust their vital principle in resistance instead of growth. Andalusian and Arab horses degenerate, or die out. Almond-trees bear no fruit.'

'Laurels,' I observed, 'grow to a height of one hundred feet at Teneriffe, there are some in Madeira still larger, the trunks are eight or ten feet in circumference. Look at them in Paris or London, wretched sickly specimens.

'Even supposing you transplanted your specimens from Orotava to a favourable isothermal climate, even then nature, which we call capricious because we cannot understand her, would disappoint your hopes. The Guernsey lily will not flourish in Jersey; it becomes blanched and dies; and yet the two islands almost touch each other. Toads abound in Jersey; millions have been exported thence into England and Australia, where they flourish; but they die in Guernsey, although they have been known to live in stones. The two islands are only eighteen miles apart, on the same isothermal line. The African aloe flourishes in Jersey in the open air, while geraniums are killed nearly every third or fourth year; in Guernsey a magnificent aloe has flowered in Victor Hugo's garden. In 1866, I saw at St. Peter Port an aloe larger and finer than any in Teneriffe; it has been pulled up this year, for it grew above the first-floor windows and obstructed the light and air; the pelargoniums close to it died in November. Who can explain these anomalies?'

'Such being the case in isothermal latitudes,' said Krauss, 'why try acclimatisation in Orotava? Before

sending plants to other countries, it would be as well to know why the tulip has not been introduced into the Canary Islands.

'Ramon, the great naturalist, who fifteen years ago demanded its secret from the mountain, and at length discovered it—Ramon says: "However capricious the causes which presided over the distribution of the various species throughout the world, there is no doubt that they could all live on the same isothermal line if nature simply followed the laws of temperature; but besides this law, they are subject to other conditions, the mystery of which has not yet been discovered."

'I think the question of acclimatisation is at an end after that; I have no more to say.'

'I have something to add,' said the Canadian. 'As to making the Garden a practical school of agriculture and arboriculture, as has been proposed, the idea is Utopian. The mere keeping up of the Garden as it is is impossible in the present state of its funds; how, then, are you to increase the expenses tenfold? There is not sufficient land, nor houses enough, the professional staff would be expensive, the soil is unfavourable to agriculture, being now nothing more than a conglomerate of dead leaves and vegetable matter. Some degree of vegetation is kept up by the action of sun and rain, but for a Botanical Garden the soil would have to be entirely re-made.

'As to the idea of making Zoological Gardens, it is realisable like the preceding one, with several thousand pounds. For the last thirty years, money for the present expenses has been wanting; where is the money for a

menagerie to come from? And what would be the use of it?

'When you cannot get a cottage, it may be all very well in Spain to dream of castles, it consoles some people; we active Americans laugh at dreamers.

'Let us leave these Utopian ideas.

'The situation of the Gardens has been criticised.'

'Quite wrongly,' said Krauss. 'They are on the slope of a hill, a very gentle slope, just enough to circulate the water, which is very abundant. They are enclosed by walls which could easily be put in good repair. They are planted with magnificent trees, and it would be a crime of lèse-nationality to allow for the want of a little money these gardens to perish, which were the glory of Orotava when they were superintended by a true patriot, and which might not only again become so, but might surpass their former splendour by being made *exclusively* a Botanical Garden. What can be more noble, more moral, more delightful, than the possession of a Botanical Garden? Every town obtains one as soon as possible. Let them then devote money to this object, for the present state of the Gardens is worse than death. Half the species which it formerly contained are lost.'

'Yes,' said the Canadian, 'the gardeners plant cabbages, onions, and carrots in the Linnæan squares; a third of the Gardens is given up to the cultivation of cochineal, in order that the gardeners may be paid; seeds are sold to Parisians and Londoners; flowers and fruit are sold in the Gardens. Meanwhile, the walls are tumbling down, there is no money to pay for repairs: the head-gardener

has been, he says, for the last three years without the annual salary voted by the Cortes. It is worse than death, it is disgraceful!

Let us go back a little, and take up the history of the Gardens again.

At the request of the Marquis de Villenueva, the Crown sanctioned the Gardens by a royal ordinance of 1791. This monarchy, on whose dominions the sun never set, could only help the undertaking with 1,000*l.*! not enough for the preliminary expenses. Next year, the Spanish Government undertook to pay a gardener, whom it sent out. The Marquis finding that he was of no use, sent for another from England at his own expense. He was deceived by his agent in London, who sent him a man perfectly ignorant of botany and even of horticulture. Things went on as best they could until 1796. The Marquis could not draw back, personal and national honour were in question, he was forced to go on.

The French Government now determined to send out an expedition commanded by Baudin; Le Dru, a celebrated naturalist, took part in it. Le Dru believed in the possibility of acclimatisation, and wrote in his report to Captain Baudin: 'The Spanish Government, to which the finest countries in the world belong, is perhaps the only Government which can collect together in one spot the most valuable tropical plants in order gradually to acclimatise them in temperate latitudes.'

By this time the Marquis had spent 4,000*l.* of his own money, besides the 1,000*l* from Government; he had tried Spanish gardeners, and had engaged an English one,

when Le Dru arrived at Santa Cruz. He went the very next day to the Gardens, accompanied by M. Legros. The Marquis received these gentlemen with the greatest delight. 'They first traced out, in accordance with the Linnæan system, twenty-four squares, one for each of the great families of plants corresponding to the division. They wrote on labels the names of the classes, orders, and genera; arranged them not only according to the Linnæan nomenclature, but also in proportion to the larger or smaller number of known plants forming each section. Thus, as soon as a plant came into the Gardens, any of the labourers could put it in its proper place. No skill or science was needed. Thanks to these gentlemen, the Garden became a *botanical* chart, in which one could read, see, and understand the science better than in a book. So, finding it impossible to procure a good gardener, the Marquis kept the one already there, and for ten years all went on admirably.'

These are the Marquis's own words, taken from a report to the Government, written twenty years later. France may be proud of them.

The Marquis adds, mournfully: 'I had made another engagement, and was obliged to pay the detestable gardener 600*l.* to get rid of him.'

An under-gardener and two labourers were employed as well; and so admirably were the Gardens arranged that these few men sufficed to take care of the plants, plant fresh specimens, and manage the irrigation.

It was during this period that the Gardens attained their chief celebrity: it was immense, universal, and still

survives. A great deal of it was owing to Humboldt, who went all over them with the greatest care.

We shall not give a list of all the persons who have visited them, although for the last twenty years they have been in a deplorable state; yet such was their early fame that people still come to see them. The sight is now a lamentable one, no longer a garden, a terrestrial paradise; in spite of cool shades and murmuring waters, one is anxious to leave the place. And yet, what an admirable situation, and what labour has been spent upon it! The walls and fountains alone cost the Marquis 4,000*l.*, and besides this he spent nearly 400*l.* a-year for five-and-twenty or thirty years. He gave also part of the ground; the rest was given by the Marquis de la Florida's grandfather. And now to give an idea of the labour. The land was rocky, the rocks had to be cleared away, they were made use of for the buildings. And when they had removed six feet of rock, what did they find underneath, permeable soil, or more rock? Both. These difficulties were overcome by the energy of the Marquis and by money. This labour over, the Water Companies generously gave the necessary supply of water.

It should be remarked, that the Marquis lived at Laguna, with which his family and his own interests were connected, and that he could, if he had pleased, have made the Gardens there. But he conscientiously preferred the climate of Orotava to that of Laguna, and laid out the Gardens there, eighteen miles from his own residence; which, for the rest of his life, three-and-thirty years, was a daily source of great inconvenience to him,

He had at least the satisfaction of seeing plants arrive from Asia, Africa, America, and Australia. Although afterwards he met with disappointments in trying to realise his favourite scheme of European acclimatisation, he had some consolation; for his undertaking, besides exciting curiosity and praise, obtained for him valuable friendships, and intercourse with the most eminent men of the early part of this century. His polished and gentle character, his knowledge of men and things, science and literature, rendered him worthy of his high position. His glory was reflected on his country. What honours were paid him in return? Was even the trumpery Order of Charles III. given him? We do not know; probably not. What parsimony then! What prodigality now! But the Gardens remain, as a monument to his glory. And they will remain, unless there is neither patriotism, nor intelligence, nor gratitude, nor taste, nor common sense, in the Islands.

'Ah!' said Brünner, 'if it were a Madonna, or some monument of human vanity, barracks, or a chapel, money would not be wanting!'

'And now for the history of the Gardens since the death of the Marquis,' resumed the Canadian.

The Spanish Government had voted 280*l.* a-year to be thus distributed: 60*l.* for the superintendent; 40*l.* for a gardener; 28*l.* for two labourers; and the rest for keeping up the Gardens, &c. It was very little, but it was something.

The Marquis, a short time before his death, begged M. Berthelot, an excellent young French savant, who, for love

of the Islands, of which he has been the best historian, had settled there, to take the management of the Gardens in hand. 'I was already convinced,' says M. Berthelot, in his great work, 'that acclimatisation could only be carried out in isothermal latitudes, nature having imposed on plants conditions of existence which man can reproduce in hothouses only. However, as my assistance might be useful in other ways, I accepted the offer.'

It was a pity he did. Disgusted for many reasons, he was forced to resign. Then came superintendents ignorant of botany, unpractical gardeners. About 1857, a Frenchman, 'although disgusted by threats of dismissal,' remained some time, then resigned. The present gardener is a Swiss, who is no botanist, but manages to live from the produce of the Gardens.

General Ortega perceived that if the Captain-General lived at the Gardens, besides the agreeableness of such a residence, the Gardens would profit by the presence of the chief authority of the Islands, and the sums destined for them would not be laid out in other ways. Accordingly, he laid in a stock of wood, and had the walls and framework prepared of a house for the Governor. He went away; another Governor was appointed. A few beams are all that now remain of the projected building; everything has been sold piecemeal, or destroyed, or is lying there on the spot.

In a report to the Junta, Don F. Maria de Leon wrote: 'Since the death of the Marquis, the Gardens have been neglected; the squares are used as a kitchen-garden; other parts remain uncultivated; so that, instead of being

a sign of the prosperity of the Islands, it shows shameful neglect.'

Ah! if these 'wonderful Gardens belonged to France, or England, or even to Portugal,' exclaims Don Benigno Carballo, 'they would soon be looked after, and their fame spread in every imaginable way!' This is very possible, and somewhat disgraceful. Cannot the Canary Islanders do what every other people would do? They boast so much of their patriotism, they are so proud of their nationality; is all this nothing but words? There are certainly 2,000 wealthy families in the Islands. If each would give ten shillings a-year, the Gardens might be kept up. If the Government will not help, let them do without it.

To conclude, the Gardens are useful in themselves. They have been the glory of the Canary Islands; the honour and patriotism of the Islanders are involved in the matter. If they cannot render all the services once expected, that is no reason for suppressing them. I know, on good authority, that some of the Islanders have proposed to sell them. Happily, the suggestion has not been listened to. Let the name be changed from Gardens of Acclimatisation, which they never can be, to Botanical Gardens. Let the Islands keep them up, as they keep up their promenades, streets, and roads. Surely they are in a high degree matter of public utility.

There is a press in Santa Cruz, by means of which a vote of subsidies for the preservation of a national glory can be demanded from the local authorities. If they refuse, let the Islanders employ every constitutional weapon,

let them not re-elect any official without making stipulations with respect to the Gardens. If these and other practicable means fail, a remedy still remains; let those who can afford it subscribe, but let them cultivate the Gardens, and cease their lamentations: there is nothing to hinder them, neither the law, nor the Government.

'When he sees the deplorable state of the Gardens,' says Señor Carballo, 'the traveller cannot refrain from severe accusations *against Spain.*' But it is not only Spain, it is the conduct of the Islanders that deserves severe accusations. As Professor of Political Economy in the commercial and industrial Institute of Madrid, the author ought to know that those nations who are independent of the Government are the happiest and wealthiest. He must have taught his pupils that privileges, monopolies, state aid, ruin the citizens of a State. He has no doubt taught them that 'Help yourself' is the motto, not only of the man who wishes to become free, but also of him who, being free, wishes to remain so.

Instead then, Canarians, of complaining, and making useless lamentations, form an association, give lectures, English fashion, or ventilate the matter by means of the press. Say that, by exchanging plants, the expenses will not be so great as people think, and that they may be still further diminished by the sale of the products. Say that the Gardens are planted, the system for watering them all ready, that there are no other expenses, except those of keeping them up, that you can procure new species, that you will appeal to the Gardens of India, the Cape, America, France, and England; that Spain, if she will give no

money, can recommend the Gardens to her Consuls and Ministers throughout the world; that emigration has made numbers of your fellow-countrymen in Havana and all over America wealthy men, and that they will send you specimens. Finally, invoke patriotism in your peroration, and you will see that you will be understood. What is wanting above everything in the Canaries, is the inclination to take the initiative. You must rouse it; then if you fail, you will at least have the honour of having made the attempt, and that is much.

A question of interest still remains. A Frenchman, M. Germond de Lavigne, says: 'The principal attraction of Orotava is the Botanical Garden.' He is right. It was formed by scientific men, amidst the unanimous applause of all the scientific men of the age. Voyages were made to it; not a voyage has been made round the world for the last eighty years which has not sent its artists and naturalists there; not an invalid or tourist has spent a week in Teneriffe without paying a visit to the Gardens; not a letter has been written to a friend, no book of travels or of natural history, which does not mention the Gardens; and they are to be allowed to perish—the glory of the nation, a source of prosperity to the Island! The landlords of Orotava and Santa Cruz are well aware of the importance of the Gardens to them. They talk of making Orotava a winter residence for invalids, but in order to do so they must offer some attractions; and what greater attraction can there be than the Gardens? If they are properly kept up, the number of visitors will increase, and the money laid out on the

Gardens will return to its owners' hands, by roundabout but sure ways.

Come then, gentlemen, subscribe something annually to the Botanical Gardens! spend a little less in masses, and you will thus make sure of the true terrestrial paradise, the Botanical Gardens of Orotava.

Chapter IV.

NATIONAL EDUCATION.

With the exception of primary instruction, which to a certain extent is carried on throughout the Archipelago, Teneriffe and Gran Canaria alone, alas! enjoy, and that but lately, the advantages of secondary instruction.

After the Conquest there was no instruction in the Islands, except such as the priests and monks gave of their own accord to a favoured few; and this education was in general very elementary. The Conquistador, Alonso de Lugo, brought with him two Augustine monks. Endowments were given them, a hermitage provided for them, and in a short time they possessed a monastery and considerable revenues, a sumptuous church attached to the monastery, endowments for chapels and vaults. The Augustine cloister, which was destined to serve as a public school, then took the title of College of the Holy Ghost, and for 200 years the Augustine monks remained peaceable detainers of science, literature, and philosophy: 'detainers' we may well say, for they kept these treasures entirely to themselves, if indeed they possessed them, which is extremely doubtful. They could not give any definite diploma; that remained the exclusive privilege of

the mother-country. Under Pope Clement XI. [1700–1721] they were granted the right of conferring the minor orders and the title of Bachelor. This was all, and yet such a privilege, and so many laurels, prevented the Dominican monks from sleeping quietly in their beds. These zealous inquisitors did not seek the diffusion of light, they had quite another object in view. They wished to have the guidance of the public mind; and as no one could take part in the government without being more or less able to read and write, and have some knowledge of the Catechism, Lives of the Saints, and other things equally useful, they said to themselves, that since some one must teach these things, it would be much more correct if their order, already so powerful, were to have this little privilege, which would increase their influence, by furnishing officials to the Islands who would always be under their control. They worked so hard, that on the death of Cardinal Molina, the zealous protector of the Augustines, the Dominican fathers, who had gained over the heads of the clergy, gained their end, and in 1747 the Augustine college was suspended: it was replaced by a seminary which the Canons of Gran Canaria obtained for their island. It still exists, but is now under the superintendence of the Bishop and the regular clergy.

During the long war between Augustines and Dominicans, a third thief arrived, as in the fable—the Jesuits, as the reader will have guessed. The Jesuit fathers succeeded in founding a college at Laguna; they also were exposed to the hatred of the Dominicans: the latter were at first the weaker, but some years afterwards, in 1767, the

Jesuit university at Laguna was suppressed by a royal decree. The disciples of Loyola were rudely aroused in the middle of the night, expelled by the *Corregidor*, and forced to re-cross the sea. Next day the bells of the Dominican monastery rang a triple peal, to announce to the people that the expulsion of the Jesuits was an accomplished fact.

We know what deep studies were carried on in France, and even in certain parts of Spain, under the direction of the Oratorians, Dominicans, and Jesuits; but such was not the case in the Canary Islands. The education and instruction of which they enjoyed the monopoly by turns, was so trifling, that even the Government, afraid as it was of light, thought that there was a great void to be filled, and that it would be as well to have a college capable of giving some genuine instruction to the Canarians. They were a long time thinking of it, 325 years, from 1493 until 1817. A University was then founded in the Augustine monastery, and different chairs established. Professors of merit were elected, sent from Spain, and from the seminary at Gran Canaria. The course of studies began; and after seven years, when they were beginning to have some result, the Revolution of 1823 put a stop to it all. A pretext was necessary for suppressing this pernicious centre of light, this school of anarchy, and as when a man wishes to kill his neighbour's dog, he says it is mad, so the Professors were accused of *impiety*, the university was said to be *a hot-bed of revolution*; in those times such an accusation included everything. Information was laid, the Dominicans, always inimical to progress,

were the accusers, and, curious vicissitude of things below! the Augustines, formerly sacrificed by the Dominicans, and their irreconcilable enemies, now forgot their old hatred in order to overthrow the common enemy, and took part with them in the new crusade. At last they were successful. But they had hardly enjoyed their triumph two years, when the Infant Don Carlos caused the university to be re-opened, in 1825. It is true that the course of instruction was greatly restricted. For five years an absurd plan of study was carried out, which bore the celebrated name of its author Colomarde. After the very short reign of the liberal institutions of the Cadiz Cortes, Ferdinand VII. and Colomarde exercised a most fatal influence on public education, both in Spain and in the Colonies. Philosophy, history, the sciences, all was interfered with and expurgated. From the union of clerical and despotic notions resulted a kind of education of which it was difficult to give an idea. History being within the scope of nearly every intelligence, and the events of modern history being appreciable by most people, a remedy was necessary for this evil. The incredible historical instruction given by a royal decree is still remembered in Spain; the absurd was taught by order of Government!

For fear of wounding the national pride in giving an idea of historical instruction in Spain, it will suffice to give an analogous example taken from Portugal. The same dominant system in France, Portugal, and Italy, produced exactly the same results in the different Latin countries. In Portugal, it was publicly taught that at

the famous battle of Algifarote, which, it is said, was the foundation of the Portuguese monarchy, the Virgin Mary appeared, fought for the good cause, and won the victory! Not content with this, the date of the monarchy was carried back to 2,000 or 3,000 years B.C.; even this was not enough, the language also was made out to be 4,000 years old. This is not more absurd than 'Bonaparte, lieutenant of His Majesty Louis XVIII.' (See Loriquet.)

These statements are now being refuted by some writers. But it is on such food that the present generation has been brought up. In Portugal, it has needed all the talent of Ercolano to free history from the incredible or absurd stories with which the clergy had overloaded it. No one would believe now what extraordinary things were taught under the name of science. Algebra was suppressed as leading to atheism; medicine, chemistry, and natural philosophy were forced to obey the orders of the fanatical minister who presided over education. While a similar system in France dismissed those Professors at the Sorbonne who were not orthodox, in Spain they imprisoned the Professors, regretting that it was not possible to burn them alive. In the Canaries, the teaching of natural philosophy was forbidden, as contradicting the sacred truths of the Book of Genesis. Let us not be too indignant against these extravagances of 1825. In our own day, in Spain, Portugal, and France, public education is under the control of the state and the clergy. Two or three years ago strange occurrences took place in Madrid, in regard to a celebrated Professor.

In 1824, several persons thought that, in the neglected

state of public education, it would be as well to establish in Teneriffe a Lyceum, which should serve as an intermediary school between the few primary schools in the Island and the University of Laguna. M. Berthelot, a distinguished geographer and naturalist, was chosen Director, with the task of establishing the Lyceum on a liberal basis like the French colleges. He was obliged first of all to submit to a *purification*, that is, to make a profession of his political and religious faith, and above all, to prove that he was not a freemason. Certainly one of the most ridiculous farces of our day is the charge of freemasonry, which threatens to last a long while. A belief in Blue Beard is allowed; but children of seven years old would pull his beard in our day. Having proved that he was not a freemason, he was excused from proving that he knew anything, and obtained a *provisional* licence; the college was opened at Orotava, and M. Berthelot did wonders. Alas! he was too successful, for scholars were sent to him from every island: it was insufferable.

What were the Bishop and clergy to do, in the face of his success? Intrigue, abuse, calumniate, and taking advantage of a voyage to Spain, take official steps, and—three months afterwards, the establishment was closed by royal decree.

1830 came, and education being still too revolutionary in the eyes of Ferdinand VII., was entirely put a stop to. That model son and husband, as fanatical as he was ignorant, suppressed at one stroke the universities 'in all the Spains.' Thus the evil was cut off at the root. It is true

that, to make up for this, he presented his people with an academy of bull-fighting the same year. A grandee of Spain was at the head of it! The professors were well paid. Fellowships were founded in order that the art might be properly learnt, according to rule, of killing a bull before 10,000 spectators, some of whom could hardly sign their names. Queen Christina re-opened the universities.

So much for the history of national education in the Canaries, prior to the Revolution. Now, everything is changed. The seminary in Gran Canaria still exists; at Laguna there is an Institute, containing from 200 to 300 scholars. Professors worthy of their high calling teach there Latin, Greek, rhetoric, philosophy, history, and grammar. The sciences are held in honour, and everything promises good results. An adult school is carried on regularly at Laguna, and there are primary teachers in more than three-fourths of the parishes in the Islands.

The revolution which is taking place in Spain while we write these pages will open a new era for national education. Having lived in Spain and in her Colonies, we can confidently affirm that there is no country in Europe where the importance of national education is better understood. If then the new Government be anxious to satisfy a want felt by all, and a very laudable one, it will establish a system of national education in every district.

The Canary Islands were at one time the lowest in the scale, on a par with the least enlightened provinces of the kingdom; by their own efforts, they were beginning to

take a higher place. We like to think that the generals who formerly resided there, and who made the revolution of 1868, understand that these Islands are destined to become powerful and prosperous, if Government will develope in them that indispensable element of all moral and physical progress, national education. Liberty of instruction being proclaimed, superior schools will also be opened, as a necessary complement to the enforced primary instruction which the Canarians themselves ought to decree as an administrative measure.

Primary instruction is indispensable; it is the fruitful mother of manual labour as well as of arts and industry; it alone frees men from the gloom of superstition, helps them to understand their duties as sons, fathers, and citizens, and enables them to render themselves worthy of liberty.

To be successful, every revolution ought to raise the standard of intelligence, and diffuse instruction more widely. If the victors of September fail in this duty, the Canarians must act without them; they will see a new spirit arise, and the secondary schools, which are now deserted on account of the insufficiency of primary education, will then have any number of scholars, anxious to learn science, philosophy, history, and art.

Chapter V.

THE DRAGON OF THE GARDEN OF THE HESPERIDES.

The Hesperides, from *Hesperus* or *Vesperus*, were the islands where the evening lived, the extreme westerly point of the globe. This just and logical idea of the ancients has not been overturned by the discovery of the New World; the Hesperides remain the extreme west of Europe. Hierro, the most westerly of the Islands, was fixed on by a scientific congress as the point through which the meridian of west longitude should still pass for Asia, Europe, and Africa.

Hesiod, the father of poetry, says 'night gave birth to the Hesperides, who guard the golden apples in the bosom of ocean, in the same place where Atlas supports the heavens.' It would have been impossible to describe Teneriffe more exactly in the mythological language of the time.

Diodorus Siculus says 'the Hesperides, or Atlantides, were the seven daughters of Atlas.' This is an exact description of the seven Islands; there can be no doubt on the subject, for Dionysius of Halicarnassus says 'the Hesperides, daughters of Atlas, were the seven Pleiades,

whose mother was Hesperis, daughter of Hesperus, the brother of Atlas.'

All the ancients indicate the Hesperides under the name of Happy or Fortunate Islands, as we mentioned in our geographical sketch, and we shall find other proofs when we come to treat of Atlantis.

Teneriffe being evidently meant by the Island of the Hesperides, the Garden of the Hesperides could be nowhere else than in the valley of Orotava.

The golden apples are still there, and the palm-trees; the *laurus persea* (avocado pear) is indigenous, and the dragon still bars the entrance. With the dragon we enter the realm of fable.

Let us first examine the tree.

Drago (*dracœna draco*), Linnæus; Draco (*palma Canariensis*), Tournefort, a tree of the family Asparageæ, indigenous in the Canary Islands, Madeira, Porto Santo, and the Atlas chain, grows wild in the fields. The trunk is thick and short, and spreads out into regular branches, forming a funnel, bare of twigs, like the trunk, and having leaves only at the extremities. These branches all spring from the top of the trunk, close together, in pairs, like those of the mandrake; smooth and even, like the arms of a giant or a serpent's skin, they form a sort of contracted cup; like the trunk, they are of a bluish green, rounded, and terminating in tufts of leaves, standing up like gigantic fingers. The part at the end, on which the leaves grow, can be pulled off without leaving a mark, as you break the top off an asparagus shoot. It is covered with numerous leaves, smooth, green, from two to four

feet long, from one to three inches broad, ending in a sharp point like a sword. The flowers are small, numerous, and panicled; they spring from the end of the branch. Each flower has six petals, six stamens, and an ovary. The fruit is a yellowish berry, rough, with a small kernel. The pedicles of these flowers are furnished with a small sheath at the base.

The wood of the dragon-tree is spongy and light. The Guanches made *rondaches* (bucklers) of it. The bark being soft and fibrous, they made it into string.

The dragon-tree owes its celebrity as much to the blood or sap which flows from its wounds, as to its extraordinary shape; it cannot fail to strike the traveller with wonder. This sap is a kind of resin which exudes from the trunk and branches in the dog-days, by means of incisions or natural openings. It condenses in great drops the colour of blood, at first soft, but afterwards dry and easily crumbled. It is made into grains without taste or smell, except when burnt; they then diffuse an odour somewhat like that of liquid storax.

This substance is composed of resin and tannic acid; it is much used in medicine, although now in pharmaceutic preparations the resinous dragon's blood of the Indies is preferred—the product of the common dragon-trees of Asia and America, entirely dissimilar from that of the Atlantic dragon-tree. It is also extracted from a number of similar vegetable products, and made into dry, hard, long rods, which are preferred to the product of the *dracœna draco* on account of the difference of the price, which amounts to ninety per cent. After incisions have

been made in the common dragon-tree, the resin is received in reeds divided at each joint, or more often into the smooth leaves of reeds; from thence it derives its commercial name 'dragon's blood in reeds.'

Dragon's blood will not dissolve in water, but only in spirits of wine. A curative power is attributed to it in cases of diarrhœa, dysentery, and hæmorrhage; it is a strong astringent. Applied externally, it heals ulcers and facilitates the cicatrisation of wounds; it was used for many centuries to strengthen warriors, and entered into the composition of all the powders used for that purpose; it is now used in making several kinds of varnish, to which it gives a fine red gold colour, after being dissolved in spirits of wine. Its consumption was formerly much more considerable than it is now. No doubt it is essential not to confound the dragon's blood of the *dracœna draco* with that of the common shrubs of Asia and America; but it is still more important not to confound any of these substances with the dragon's blood extracted from the rotang and *croton sanguifluum*. This is also a red resin, but of far inferior curative powers.

Under the names of Gambian and Oriental dragon's blood, a kind of red gum has been largely used as a drug. In France the name of dragon's blood is given to the plant called monk's rhubarb (*rumex alpinus*), a kind of sorrel, having tubercles at the base of the interior leaflets of the calyx.

A tax was levied in the Canary Islands on the very large sale of the produce of the *dracœna draco*. Yet no efforts were made to increase the number of trees. A great

number have even been pulled up, as injurious to agriculture; and although some very fine trees still exist, their number diminishes from day to day.

From the time of the Conquest down to the last century, it was believed and maintained by scientific men that the dragon-tree originally came from the East. This error is now exploded; the species originally belonged exclusively to the islands of Atlantis, and grew spontaneously in the Archipelago. It is found in Madeira and Porto Santo, where it was certainly never taken by man; it is found in Palma and all over Teneriffe, while we may vainly seek it in India, where the savans placed it. The mistake arose from the product of the common dragon-tree, which grows, as we have just seen, in India and America, but which has nothing in common with the *dracœna draco.*

The ancients who frequented the islands, who collected purple in Madeira and Porto Santo, (*purpuriæ insulæ*), came for dragon's blood to Teneriffe and Palma, as the naturalist Pliny tells us ('Hist. Nat.' lib. vi. cap. xxxvii.): '*Ex iis quoque insulis Fortunatis Crinabaris Romam advehebatur. Sane hodie num frequens est in insulis arbor illa quæ Crinabarim gignit, vulgo sanguinem draconis appellant.*'

The ancients always spoke of the dragon of the Garden of the Hesperides in the singular; this was because there was one tree, 4,000 years ago, of prodigious dimensions in the very middle of the valley of Orotava, in a particular spot of the Garden of the Hesperides, near the royal grotto, in the centre of the population and of cultiva-

tion. This tree still exists, and we are about to give its history.

When the conquerors divided the island and formed the 'twelve great houses,' the dragon-tree of Orotava served as a landmark for the division of the valley lands. When they cut down the forests for the purpose of building the town, the harbour, and their country residences, they spared the old dragon, as the Guanches had respected and venerated the monarch of their forests; the ancients, as we have said, had attributed to it animal life and even deified it. The respect paid to it by the moderns proves that the ancients had rightly estimated this vegetable wonder.

As early as 1350 Cadamosto (more correctly Ca da Mosto) had spoken of the dragon-tree. But since the latter half of the fourteenth century all the sailors, soldiers, monks, historians, travellers from every country, scientific men, and artists have drawn or described the gigantic dragon-tree of Orotava. In our days the daguerreotype and photography have been called in. A branch broken off in a storm was shown in Kew Gardens, and the gaping public, after seeing the picture or reading the description of it, was able actually to touch the monster. We were assured at Orotava that this branch was not sold, as is generally believed, but given. The branch at Kew is a tree nearly ten feet in circumference, one of twelve similar branches which sprang from the trunk.

At the time of the Conquest the dimensions of the tree were said to be 48 feet in circumference close

to the ground, 35 feet at the height of 6 feet, 23 feet at the height of 14 feet, and 60 feet in height. The trunk divided into twelve branches, opening like a funnel. In this opening a table was placed, round which fourteen persons could seat themselves.

Every vegetable product has a personal, individual form, which characterises it and distinguishes it from all others; the distinctive mark and exterior character of this tree was very curious, and merits description. The body of the tree was like a truncated sugar-loaf, from the upper part of which sprang twelve branches, in the shape of a hollow cone, much wider than the sugar-loaf itself; for while the circumference of the cone at the base was but 50 feet, the circumference of the reversed cone at the top was about 200 feet. It was, we may say, a small cone supporting a large cone, joined at the narrow part—a kind of hour-glass, the upper part of which was five times the size of the lower part.

Le Dru, the naturalist attached to Baudin's expedition, measured the tree with mathematical exactness 400 years after the first navigators. He gave almost exactly the same dimensions, with the exception of one foot more at the base. This difference was not the effect of age; the tree had suffered, was split, and had expanded. Baudin and Le Dru predicted its downfall, and gave 150 years as the time it would probably last. Thus, towards the end of the last century, signs of decrepitude were manifest; the trunk was attacked. However, the cracks and cavities were filled in with masonry and cement, and in a country where there are no violent storms, sheltered from the

north-east winds and the *levante*, it was hoped that it might be preserved, at least for the 150 years given it by Le Dru. In 1819 it was standing, and its leaves and bark were full of sap and vigour; but the state of the trunk had grown worse. Then came the storm which broke off the first branch (that sent to Kew). It was mutilated, and from that time disaster was imminent. Let us say a few words before relating the catastrophe.

It was during the first half of this century that the tree received a visit from the most famous of travellers, Baron Humboldt, who settled the question of its age. 6,000 years had been the age assigned to it; Le Dru, Borda, and other travellers had stopped at 5,000 or 6,000 as the very outside. Humboldt set it down as 10,000 years. Since then various naturalists, able to study the subject, have nearly all confirmed Humboldt's calculations on different grounds, checking the one by the other. It is difficult to calculate exactly the age of this colossus, this ancestor of the vegetable world. Perhaps, if it were cut down and the trunk examined, some solid starting point might be found on which to base the calculations. *Videant sapientes.* It is their affair.

In 1867 a dreadful tempest destroyed the top of the tree. The upper cone fell; the lower one alone is left. The soil all round is covered with pieces of broken branches, some of which are eighteen feet in circumference! The smallest, the ends of the branches having lost their leaves, look like mutilated wrists, and are as thick as a man's leg.

The trunk alone, as we have said, remains standing;

but it is much injured. The holes have been filled up with stones and plaster. It is now only from its base that any idea of the colossus can be formed, as it once was when it bore the branches which now lie at its feet.

Although the greatest care and attention since the time of the Conquest have not been able to preserve the dragon-tree, although it is substantially dead to posterity, yet its memory will remain, kept alive by science, observation, and all the imitative arts. The poetic fables of the ancients will also remain to us, and it must be acknowledged that, according to the ancient hypothesis, this image of the dragon was not over-strained, and presented some special features. A philosopher, not an Athenian, nor a Sicilian geographer, nor a Parthenopian naturalist, but a Frenchman, Nicolas Monard, imagined that, like the ancients, he had discovered beneath the husk of the fruit a perfect figure of the dragon of fable. What cannot imagination do? and what a wonderful thing is faith, whether applied to the miracles of Romanism or the fables of Paganism!

O ancient witness of primitive ages! high grass covered thy feet; climbing plants twined themselves round thy trunk, and boldly clung to thy branches; parasites grew on thee, feeding on thy substance; thou hast seen beneath thy shade happy generations, useless or malevolent monks, and bloody warriors; for a hundred centuries, men have been sheltered by thee; the conqueror Alonso de Lugo had mass said on an altar under thy shade, thine, who hadst witnessed the mysterious rites of Egypt, Phœnician idolatry, Greek mythology, and Moorish ablutions! What a

marvellous life has been thine, and what a mournful death after a hundred years of dying! And now, ancient tree, first-born and most venerable of created beings, thou art dishonoured hopelessly, for it is in the name of science. O fabulous dragon, thou who wert deified; thou art nothing more than an *asparagus plant*, an asparagus plant larger than any other, that is all! Thou art no longer a tree, the monarch of the forest; thou art but a mere vegetable, classed in the family *asparageæ*, and this sentence is without appeal.

The slow growth of this plant is well known; to this discovery are due the calculations which have fixed 10,000 years as the age of the dragon-tree.

But whilst science classes among the *asparageæ* one of the most marvellous trees in creation, a learned man, M. de Mirbel, declares that the *dracœna draco* is living! He has found in the tissue between the bark and the stem an utricular layer, which he has examined with a powerful microscope, and he has seen living granules, excessively small, produced in it. These granules move, come together, and form fresh utricles. Thus we see the cellule secreted by the creature which is to build it with the aid of the cellulose, and this creature which thus protects and covers itself is an atom, an invisible corpuscle, six millions go to a cubic inch! The *dracœna* has given rise to these marvellous studies, and has held the honour of furnishing the material for the first discoveries of Messrs. Payen and de Mirbel. Thus we see on how many grounds this celebrated tree is interesting to men of science as well as to poets and tourists.

We said in a previous chapter that the Canarian Archipelago was of primary formation; the dragon-tree confirms this idea. The plant, or arborescent vegetable, is not, like calamites, found in the carboniferous districts of Europe, but it still exists in the region of Atlantis; the gigantic *equisetum* (horse-tail) which appeared there millions of years before the period of transition, must have been the immense asparagus, thirty or forty feet high, the fruit of which was a sort of layered stump, a living plant reproducing itself by means of cryptogamous sporules. Although in succeeding epochs these plants diminished in size, yet we may well allow that the preservation of the dragon-tree in a favourable soil was very possible.

The great dragon-tree, the ancestor and veteran of vegetation, is not the only one which has enjoyed a widespread reputation. Clavijo, the great naturalist, the insular translator of Buffon, speaks of a dragon-tree in Gran Canaria, the large dimensions of which had been mentioned to him, and which had been seen by aged persons then living. Two oxen, harnessed, could easily get into the hollow trunk. The dragon-tree of Orotava was, however, undoubtedly larger, even according to Clavijo.

The size of the great dragon-tree, 49 feet in circumference at the base, has been surpassed by other trees of a different kind. But its antiquity is indisputably greater than that of any other known tree, from the extraordinarily slow growth of *asparageæ*.

On the sides of the Sierra Nevada, in California, there still, I believe, exist about a hundred araucarias, sequias,

and wellingtonias of gigantic size. One of the wellingtonias, which was cut down, proved from its concentric rings to be 3,100 years old; it was 450 feet high, nearly the height of the Great Pyramid, and 116 feet in circumference. In Brazil, on the Rio Branco, a tree has been discovered the foliage of which measures 500 feet in circumference; this is the *souma* or *meira*, and it belongs to the same family as the *boabab* of Senegambia, which covers 19,000 square feet with its shadow.

In England and Norway there are oaks and pines of astonishing weight and size; not one of them is 4,000 years old.

The cyprus and *laurus persea* have reached the age of 4,000 years in Persia.

The cedars of Lebanon existed in Solomon's time, and some of them still remain, less noticeable for the size of the trunk than for the strength and spread of the branches. We cannot allow their age to exceed 4,000 years.

These trees are of astonishing hardiness and vigour *for trees*. Their growth is rapid and vigorous. Not so with the dragon-tree; its slowness of growth is something extraordinary. There are some at Orotava which, although clearly proved to be 300 or 400 years old, are less than a foot in circumference; others, planted at the time of the Conquest, have hardly attained four feet; and yet it is well known that the first period of growth is the most rapid and vigorous.

The trees which bear the golden apples and the laurel are, as we have said, indigenous in the Canaries; if they were indigenous in other countries as well as Asia and

Persia, still there is no proof that they were exported thence to the islands of Atlantis. It is probable that the people of Atlantis, who civilized Greece and Egypt, introduced them into the Mediterranean countries. These trees, so dear to the Greeks and Romans, were the one a glorious emblem crowning the brows of heroes, the prize of poetry, art, and science; the other a refreshing draught, indispensable to dwellers in hot countries. These precious trees, disseminated by the ancients wherever their conquests extended, were *sacred* in their native place. Tradition, history, poetry, all prove it. But the cabalistic tree, which must have been singularly striking to nations whose theogony was inspired by nature, the dragon-tree, is more especially indigenous, autocthonous, and is only found in the Atlantic islands of Madeira and the Canaries. In its thick red sap these imaginative people, according to their constant habit of animating plants, saw the blood of an animal, the dragon of fable; the low strong trunk, the regular bifurcation of the branches like the fingers of a man's hand, the mysterious peculiar fruit, the inside of which, according to fanciful accounts, resembled a hideous monster, the sword-shaped leaves, three or four feet long, bristling on a kind of mutilated arm at the end of the branches, the bluish green colour of the scaly trunk, all gave to this tree a strange, peculiar aspect, which, separating it entirely from other trees, must have had a singular effect on the imaginative minds of those who saw it for the first time growing wild in the midst of laurel and orange groves. Seeing it bleed from its incisions during the midsummer heats, they called it a

dragon, comparing it in their alarm to the terrible monster slain by Hercules. Perhaps also, seeing a winged reptile live on this extraordinary tree and dart from it on its prey, these poetic minds called by the same name the reptile and the tree.

Let us examine this symbol, this tradition.

It is an undoubted fact that before the great Mediterranean deluge, and to a certain point even after it, strange creatures, brought forth in transitional periods, inhabited the marshy grounds or those shallow seas which still remained warm. This epoch, called by modern geologists the Reptile Period, produced creatures belonging at once to the animal, vegetable, and mineral kingdoms, or to two only, monstrous products of creative forces; birds, quadrupeds, fish, plants, reptiles, all at once, either united or distinct; the greater number of these have been restored for us by geologists. The great Cuvier reconstructed the world for us, from the ichthyosaurus to the nautilus, from the giant 100 feet long to the infusoria.

The dragon has existed. The first men saw the last survivors of those prodigious creatures, and the memory of them has been preserved. The struggles of mankind with the mighty creatures which overran the earth must have been terrible; the excessive alarm of men possessing no weapons in the first ages, gave rise to the traditions of formidable beings attacking mankind and destroyed by the demi-gods, strong and brave men.

Science corroborates tradition; the dragon still exists. It is true that it is reduced to insignificant proportions, which can no longer alarm. Its present form resembles

that of the serpent and green lizard; the wings of ancient story are now only two lateral membranes, moveable, but incapable of raising their possessor. When the dragon, however, climbs to the tops of trees to watch for its prey, it spreads out these membranes like a parachute, and being slightly moved, they suffice to bring it gently to the ground. Thence comes the name of *draco volans*. This modern dragon (the flying lizard) feeds on insects, and is able to store them up, keeping them in a kind of pouch, from which it can withdraw them at will, its throat and lower membrane dyed pink or red, for those parasitical insects and animalculæ which live by millions on the bark of certain trees dye red the jaws which devour them and the bodies which crush them.

This degenerate reptile is not, it is true, directly descended from the dragon of fable, but it witnesses to the truth of the fable, and science has discovered among fossil remains creatures which answer exactly to the descriptions of antiquity, the great family of the Saurians. The iguanodon was herbivorous, and perhaps, like the camel, able to bite the toughest plants; the megalosaurus pursued fish in the depths of the sea. The pterodactyles, furnished with rudimentary claws, walked the earth, while at the same time they were able to rise above it by means of their enormous wings; the nature of their feet proves that they could and did perch on trees, thus being at once reptiles, vampires, bats, and fish; monsters of creation, whose remains form important strata, and which are found by millions on the surface of the primary marine formations.

Their eyes were so enormous, says Cuvier, that the orbits of some were fourteen inches deep! they were seventy feet long; their bodies were covered with scales; their serpent-like tails must have been alarming; and their throats could swallow almost anything, the opening being six or seven feet wide! After these facts, why should the tales of antiquity astonish us? On the contrary, we ought to admire the poetic genius of the ancients, which, taking its source from such horrors, was able to embellish these terrible images in order the better to preserve their memory. Let us hear the old fables.

The dragon, δράκων (from δέρκομαι, I see), was thus named on account of its piercing sight and peculiar red eye; it was of enormous size, had an ensanguined throat, the body and tail of a serpent; it was represented as covered with scales and possessing claws, and often wings. This is exactly the antediluvian monster which modern science has reconstructed from its fossil remains. Nothing is wanting, not even the enormous eye.

Nor is this all. The dragon inhabited especially the Caspian and Greek seas and shores, marshy seas, subject to many changes, and identified by science under the names of Ninevite or Asiatic Sea, Hellenic Sea, Saharian or Libyan Sea. These seas, partly dried up by the successive disturbances of the earth's crust, have revealed vast calcareous deposits, in which an accumulation of organic remains has been discovered. The East must have preserved the tradition of these, and Asiatic and Greek poetry called them by turns the guardian of the Golden Fleece, on those eastern shores conquered by the Argonauts, the

protector of the Castalian fountain on the Mediterranean shores, and the guardian of the golden apples in the Gardens of the Hesperides in the land of Atlantis. Was the dragon an object of worship among the ancients? This has been maintained, but it is useless to seek for proofs of the probability of such worship.

It is enough to prove that an epoch of transition between the animal creation and mankind was recognised in the ancient theogonies, in order to harmonise the traditions of Egypt with those of the Vedas, the Zend-Avesta of Zoroaster, Brahma and Manu with Greek fable. It is true that these early ideas of mankind were obscured by erroneous interpretations and defective symbols, but they suffice to show us the first confirmations of the revelations of a modern science which, when developed, will one day show us the origin of the world in which we live, and prove that universal progress is the law of nature.

The strange monsters who peopled the world before the advent of man are depicted to us as vanquished by light, by divine wisdom, by human strength. Apollo in his fiery car traverses and illuminates chaos, dispersing the monsters and transfixing them with his arrows; Bellerophon destroys the chimera; Hercules slays the hydra. And Saint Michael the Archangel is represented as slaying the dragon. Nor is this all. The ardent faith of the Middle Ages preserved the image, by the sublime language of art, in fairy tales, popular festivals, Catholic ceremonies, and monuments; in gurgoyles and the sculptures of cathedrals. The Middle Ages everywhere preserved the

remembrance of the dragon of antiquity, and chivalry used it as the heraldic emblem of heroic actions.

We ourselves, although rendered prosaic by the worship of the golden calf, too much influenced by the material wants of a life exclusively devoted to gain, have not we also countenanced the eastern fable by giving the name of *dragoon* to a horse-soldier, a kind of hippogriff, like the saurian, that formidable being furnished with the means of battling with the wild order of nature in which its lot was cast? have we not given that ancient and monstrous name to those troops who are the terror of their enemies from their boldness in harassing them, their power to conquer them, and their swiftness in overtaking them? have we not covered their heads with helmets on which, in imitation of the ancients, we have laid the serpent's scales, and the gorgon's head surmounted by the red bird's plume, and ending in the hippogriff's tail?

The Indians, Chinese, Japanese, and American savages, too, have they not also, in remembrance of the monstrous creatures who first peopled the earth, preserved in their paintings, their sculpture, and their poetry the dragon of ancient fable, and perpetuated it until this very hour?

From Hesiod and Homer down to Tasso and Ariosto, from the ancient world to the modern, the dragon has been sung by all, and to complete the universality of the symbol, the great saurian, reptile, bird, fish, was also deified by the Danes and Northmen, who in the ninth and tenth centuries embarked on board their *drakes*, or dragons, on the prows of which the traditional head was carved,

and which in their form resembled the fabulous *pristis* of the ancients.

No, the fable of the dragon is not a fable, but the true and exact image of one phase of creation; it is a symbol in use among all nations, and it is with a feeling of admiration for those who created it, and of veneration for those who have successively preserved it, that we treat of this subject in the very place which gave it birth, and in sight of the venerable tree beneath which the dragon once crouched.

The Valley of the Hesperides is indeed the paradise of pagan antiquity, where in profound peace, the dragon slain, evil defeated, eternity gained, the souls of the heroes wandered in tranquillity and light. The monster was no more; the first age of the primary formation was at an end for ever; the age of reptiles was over; the harmless tree alone has remained.

The age of humanity begins.

Chapter VI.

THE CLERGY.

'We will begin with a little ancient history,' said Brünner; 'I like speaking of the clergy of former times as well as of those of the present day.

'The Inquisition has not been idle in the Archipelago. Established on a small scale in 1504, it constituted itself, contrary to law, a free tribunal in 1567. It soon began to rack and burn, to torture in every imaginable way, for the sake of sending the souls of its victims to paradise. But its deeds were insignificant when compared with what went on in Spain; still more so when compared with the Inquisition in America, where, in order to save the Dominicans trouble, dogs were specially trained to devour the Indians in a Catholic manner, thus despatching them at once to heaven. The name of one of these dogs, Berecillo, has been carefully preserved to history, thanks to one of the fathers, according to whose accounts the Government granted this dog, on account of his services to religion, the pay of three men. It was his due: he had devoured more Indians than the other dogs.

'The most impossible crimes were imputed by the tribunal to those who were to be got rid of—sorcery,

Judaism, and even Mohammedanism! Any excuse served. Let us mention a few of the Inquisition's acts, so well adapted to make the Christian religion beloved. In 1557 a Guanche was burnt to death, for the sake of example; in 1576 a Moor, to amuse the people. A Moor was less than a dog, less than nothing. In 1526 a Portuguese. That was a mere trifle, a foreigner who ought to have been judged by the civil law, a mere violation of international law, not worth mentioning. There is a Spanish proverb: 'Take from a Spaniard all the good in him, and what remains? a Portuguese.' Accordingly another Portuguese was burnt in 1559. When the naturalist Le Dru visited Laguna, he saw with his own eyes the pictures which represented these amusements, these *acts of faith* (*autos da fe*). The name is somewhat ironical.

'Fortunately Portugal was the first to expel the Jesuits, showing herself superior to Spain in this respect at least. The 'Encyclopédie' appeared, and the worthy Dominicans, despised and abused in Spain and the Canaries, were henceforward powerless, and were allowed to exist until 1820 only on condition of their tolerance as regarded all religious questions. The good fathers occupied themselves with eating and other material concerns alone for a hundred years, leaving the instruments of torture to moulder away in their dungeons.

'The law of 1820 abolished the Inquisition and dispersed the monks. On the day the news arrived at Las Palmas the college students mounted the tower and rang a funeral knell. The alarmed populace, fearing some disaster, ran to the foot of the tower. "There is nothing the matter,"

cried the students; "our neighbour is dead; we are ringing for the funeral. Hurrah for the Constitution!"'

'The laughter and cheers of the crowd may be imagined. In this manner the "Holy Inquisition" expired in the Canaries. The only revenge taken on it was a tragi-comic student's joke. Nations are certainly too good-natured.'

'What do you mean?' said Krauss.

'Once or twice, in thousands of years, one or two kings have been executed, a pope never. The amount of suffering they have caused is incalculable; nations are, as I said, too good-natured.'

'You are a Red Republican; you like blood.'

'I drink it. The excellent Dominic who said, "Kill them all; God will recognise His own!" was a gentle, good, pious man, a Royalist; if I had been a peasant of Beziers or Carcassonne who had captured and hanged him, I should have been wicked, impious, a Republican. There's justice for you! One man kills his fellow-creatures by thousands. He does them too much honour; he shall be canonised. The people, at length exasperated, revenge themselves. No, judge a king, who after all is a responsible being. No excuse, no pity for them; out upon them! Nations are decidedly too good-natured.'

'There, that is enough,' said the Canadian; 'do allow us to laugh a little, and don't talk politics; you look to me like a regicide who would not dare to kill even Rousseau's mandarin.'

'You want to laugh?' said Brünner; 'then don't interrupt me any more, but listen.

'In 1516 a capitular order of the Chapter of Gran Canaria, at that time the principal island of the Canaries, prohibited any priest from playing the guitar in the streets.

'They must therefore have done so before. It must have been a curious sight to see priests playing guitars in the streets and squares!

'Another law prohibited them from indulging in this musical exercise on the doorsteps, or even at the windows!

'They must have been singularly fond of performing in public.

'Next they were forbidden to wear very expensive breeches, coloured cassocks, and embroidered hats pointed behind. They were coxcombs and dandies as long ago as 1550. It appears also that they were ignorant, for it became necessary, still by means of a sovereign decree of the chapter of capitular canons, to take steps against incapable canons and priests who *could not read.* You wanted something comic, gentlemen; here it is. Laugh away!

'What can we say for these clergy, who, not knowing how to read, were the instructors, the only instructors, of youth? They could not read, and they were so powerful that the civil and military chiefs were really under their control, and that they alone administered some sort of justice. What can we say for these clergy? This. Such rigour against the priests who played the guitar in the streets, who persisted in playing it on doorsteps, who dressed in silk and were unable to read, such rigour on

the part of the chapter proves that this chapter was "rigidly observant of discipline, full of zeal for the preservation of that decorum which ought to distinguish persons clothed with the sacerdotal authority;" and, according to the author of the "Philosophical Letters," it proves nothing else. Sweet philosophy! people in their senses, less philosophical perhaps, would have found a most evident proof of want of discipline and decorum, and of ignorance, among the clergy in the Islands.

'The pagan theatre which became extinct in the fifth century had been neglected even long before that time, and the people had crowded to see the butcheries of the circus. After such exciting spectacles nothing could be shown to King Mob which did not appear tame and commonplace. Lassitude and disgust, the results of satiety, took possession of the minds of men in the Middle Ages. Everything was gloomy and melancholy, a life of labour without a future, present unhappiness without a cure. Warriors and priests divided the lands between themselves; heaven and hell, masses and the stake, were the engines used by them as instruments of wealth and despotic rule. The world will never know all the ills which Europe suffered in the Middle Ages, and the most terrible part is the immense time this suffering lasted—twelve centuries.

'Even in the thirteenth and fourteenth centuries, however, efforts were made towards emancipation; towards the end of the fourteenth century there was a great religious movement, and the protests against the frightful excesses of Catholicism engendered reform as

well as mocking scepticism. The struggle became violent and terrible. Then the clergy, not despising trifles, took possession of the theatres, and brought them into the churches, to attract waverers, to bring back to the altar those who, cursing the Pope, delighted in revelry, or those possessed of ennui, driven away by dullness. In order to amuse such as these, the priests brought forward the comic sacred play.

'There were two kinds of performances in the churches and two in the streets. In the streets people were burnt alive. This lasted a long time. In the streets also, during processions, mysteries were performed on a platform—the Passion, for instance. In the north of Europe public opinion was more powerful than fanaticism; hardly any burning alive took place, and this happy reaction had a very powerful effect on the Spanish clergy. They burned fewer people, and the street mysteries also diminished. They had been abused from the very first. In 1568 the clergy were only allowed to have one performance in the year, on Corpus Christi Day. Finally Charles III. ordered them to be put an end to altogether, saying that such a scandal ought to cease. So much for the streets.

'In the churches there were two kinds of theatrical representations; one, more religious than the other, represented scenes from the life and death of our Saviour. The priests and other church officials were the actors. Vestiges of these are still to be found in Spain and the Canary Islands in the Holy Week ceremonies.

'The second kind was very different. It consisted in

representing the history of some saint, into which Spanish imagination introduced the coarsest buffooneries. It is impossible to describe them.

'"These profane representations," says Viardot, "were satirical and licentious. The platforms erected in the churches were crowded with priestly buffoons and clowns, and became schools of scandal." Finally it was decreed that these representations should take place only in those towns where there was a bishop, and in his presence.

'This did not remedy the evil. It was a profitable business; the spectator had to pay to see the performances. Another decree of the supreme court ordered "that in future performances were not to be given in the churches for money." Then, what these priests could no longer do for money they did for their amusement. The theory of art for art's sake is not a new one. The abuses still increased. In short, the authority of a council was necessary in 1565, which, "considering that performances which would not be permitted in the lowest places were given in churches," suppressed by order the representation of the festival of the Holy Innocents, "written," says Viardot, "in the most scandalous language." As for other performances, they were not for the future to take place *during mass*, and every piece "was to be examined before being performed."

'These were the divine comedies, or *autos sacramentales* (sacramental acts). The two most celebrated are "The Comedy of the Rosary," by Pedro Diaz, and "The Comedy of S. Anthony," by Alonso.

'A Spanish writer, Augustin Rojas, in tracing the origin

of the Spanish theatre, says that there was not an abbé, priest, or poet in Madrid or Seville who had not written a play about some saint. We all know that Calderon and Lope de Vega, the fathers of the modern theatre, wrote a number of *autos sacramentales*. One must live!'

'It must be owned,' remarked Mr. Goatbeard, 'that those were curious times. To us Americans, a perfectly modern or at least rejuvenated people, such things appear incredible; the most unexceptionable testimony alone can enable us to admit their possibility. So much misery and tears side by side with so much effrontery!'

'All the more reason for amusing themselves a little,' said Brünner; 'the only pleasure the poor serfs had was in church, and of course they went there in crowds. After service came the theatre, where the priests amused the populace, making them thus forget their misery for a moment. They crowded, nay more, at Burgos they stifled themselves in the cathedral on the days of *funcion* (representation). Sunday was indeed a pleasant day. During the week there were taxgatherers, thieves, bailiffs, followed by the soldiers, who each in turn took everything they could lay hands on, seignorial rights having already taken what the tithe collector had spared. The last comer perhaps carried off the peasant's wife or daughter, or got drunk at his expense. Happy for him if his hut were not burnt down. Between the fifteenth and seventeenth centuries the rural districts became a desert; the centres of population, towns and villages capable of being defended, were alone inhabited. The *mesta* (proprietors of black cattle and sheep considered as a body) assumed

alarming proportions. First the forests, then single trees were destroyed; cultivation ceased; grass was allowed to grow over half the provinces, and the sheep joined with the priests and soldiers in devouring the kingdom. It was pitiable! The peasant of La Mancha, Castille, and Estramaduras did indeed stand in need of some compensation. For such misery some remedy or diversion was needed; the priest offered it; the ministers of religion performed buffooneries in front of the altar.'

'Come, come, Brünner,' said Krauss, 'you are going beyond bounds; speak dispassionately of the clergy of the present day, and let these old tales be forgotten.'

'Be it so,' said Brünner, 'these things put me in a rage; I will say no more about them; but it would be difficult to make you understand the present state of the clergy in the Archipelago if I did not tell you what it was formerly. We will examine it from another point of view.

'Endowed by the conquerors and nobles, maintained by the middle classes, having the whole of civil life under their control, taking possession of a man at his birth and only letting him go after death, owning half the land, served by the fanatical and ignorant multitude, feared by the intelligent and independent, the clergy formed a body which was the absolute master of the consciences and of at least half the wealth of the Islands. The clergy derived their riches as much from the religious zeal and blind devotion of the middle and lower classes as from the legacies of the princes and nobles.

'Towards the end of the eighteenth century new ideas sprang up and blind faith cooled down; the regular

clergy, intoxicated with pride, sunk in indolent ease, only thought of enjoying themselves in the most scandalous ways; the secular clergy, more intelligent, endeavoured to struggle against those liberal influences which held a certain sway over men's minds, and attempted to conceal the as yet faint glimmer of light. The French Revolution broke out, and gave the first blow to the power of the clergy. The ideas of emancipation from the clergy, of the opening of cloisters, of the confiscation of ecclesiastical property, entered the peninsula with the French. These ideas were, alas! the sole result of that six years' war which cost so much gold and blood to the two sister nations; an impious war, begun with an ambuscade, carried on with madness, and ended by a retreat, by disaster; a frightful war which alone would suffice to disgrace a man of genius guilty of many other crimes besides, but which nevertheless produced two excellent results—hatred of despotism and the constitution of Cadiz.'

'Brünner, you are intolerable,' said Krauss; 'you always go to such extremes. Where did you find that the Emperor —'

'My dear Krauss, I retract, out of respect to your Frankfort Bonapartism, and I will proceed.

'The monks of every order remained, so to speak, mewed up in their monasteries, rather despised than hated, being for the most part natives of the country, resigned to their fate from indifference, cowardly apathy, temperament, habit, or idleness; they lived well and were happy, too stupid to perceive that the ground was trembling

beneath their feet. Several laws in succession gave them rude shocks.

'The secular clergy made a wonderful resistance. They had seen the storm coming, and by priestcraft, by cunning, and by the help of the civil and military power, maintained a fierce struggle. In 1854 a decisive law deprived them of their chief privileges, which two or three revolutions have not restored.

'Yet there is still a struggle in the Islands, although a mild one. Clerical influence is descending an inclined plane, which, while not altogether annulling it, is robbing it by degrees of its moral, political, and financial power. It is the march of human intellect, and this resistance to the clergy is one of the signs of the times in both hemispheres. However, like the asymptote, the clergy will always come nearer to, without ever reaching, the logical line, that is to say the absence of any authority. Some people have imagined that this Utopia is realisable; as long as mankind has passions, vices, and infirmities, devoteeism will be a fatal necessity which may diminish, but will never entirely die out. This diminution ought to be hastened.

'The clergy are now paid. The Church property and monasteries have been sold, and now that the Islands no longer maintain 500 or 600 useless mouths in luxury, the 250,000 inhabitants who have gained possession of the property in mortmain are growing rich. At the present day the priest, if he be old, is a good man, who has become tolerant and agreeable, rarely well informed, but yet far removed from the ignorance of the good old times.

The middle-aged priest is better educated and has different ideas; he is more tolerant and also more moral than in former times. The young priests who cannot remember the old days, and have nothing to regret, fulfil their duties with a zeal somewhat lukewarm, but capable, perhaps, of being stirred up. It must be owned that they are much better educated than formerly. Those living in the country are generally honest, simple, and hospitable.

'The town clergy are much more occupied with worldliness than with politics. They live without disturbing themselves or intriguing much, peaceably, as they should do. But they feel that they are independent even of the State which pays them; they know that the metropolitan clergy and the army govern the State between them.

'Although the clergy are deprived of their property, the churches are still rich in decorations, copes, stuffs, gilding, shrines, vestments, old furniture, tapestry, and candlesticks; but only in the towns. This is the result of the clergy's having been despoiled legally and peaceably, not by a popular revolution. The churches in the rural districts are as simple as possible.

'What a happy change! We may unhesitatingly attribute half the blessings which the Islanders now enjoy to the destruction of the enormous power of the priests, which, in fact, was nothing else than making use of religion in order to appropriate the riches, liberty, and intelligence of the faithful.'

'I should like to tell you a story,' said Lionel.

'Go on,' said I; 'the interruption will not put an end to what Brünner has to say.'

'No, indeed, I find the clergy an inexhaustible source of instruction.'

'Well, this is an example of the clerical mode of proceeding, taken from Laguna.

'A wealthy mulatto inhabited that town; America had been propitious to him. He was ambitious, the poor man wanted to be made a churchwarden. Being duly instructed by one of the fathers, he offered a present which was accepted but pronounced insufficient. It was hinted that he might succeed by means of the gift of a pulpit more beautiful than that in the church of Santa Cruz. Our friend ordered one from Genoa, of Carrara marble, the very one we so much admired. The question of the admission or rejection of the mulatto was put to the vote. In spite of the prejudice of colour he would have been admitted for the sake of his piety, but what was to be done? two more votes were wanting. This time he understood how to go to work, and sent six silver lamps and two candelabra of the same metal four feet high. Then at length he was found worthy to sit on the churchwardens' bench, but he was obliged always to take the lowest seat. This opened the way to the sale of steps in rank. He would have made his way up by payment if he had lived; but the poor man died; probably he was skilfully induced at the last to bequeath his fortune to the church.'

'In these days,' said Brünner, 'such scandalous proceedings no longer take place. Let the civil law now separate the priest from the magistrate; let the priest fulfil his mission, he will then gain all that is really

enviable—the esteem and love of the faithful. Let the clergy be careful of the dignity of the new position which they occupy.'

'Tell us something about the processions and *romerias*,' said Mr. Goatbeard.

'I was just going to do so when you interrupted me.

'During Holy Week the churches are turned into magnificent shows and theatres where the Passion is performed. On Holy Thursday the people go to see the churches, all dressed out with flowers, lights, and gold and silver ornaments. On Good Friday all this is changed, and the time of mourning begins. Then on Easter Sunday comes another change. The churches are splendidly decorated, and to the decorations is added the effect produced by sacred music, mixed in the most unblushing manner with profane music from well known operas.

'The processions carry through the streets a still more costly paraphernalia, and form long files of copes, crosses, and costly ornaments; the monstrances are resplendent with gold and jewels; the dresses of the saints are also very rich. The finest procession is that of Corpus Christi Day. The streets are crowded, old hangings and tapestry are suspended from the balconies, the ground is strewn with flowers, awnings are stretched from house to house to shade the streets through which the procession is to pass, and altars, fitted up by the piety or ostentation of the faithful, arrest the procession, which performs some kind of ceremony at each of them, and then resumes its progress, preceded by a band of music. All the officials, generals,

magistrates, and government clerks, follow the procession with the utmost seriousness. Long files of young girls dressed in white, pilgrims, penitents, guilds, deacons, sub-deacons, burning incense, little children dressed as Cupids or like S. John the Baptist, finally the militia, all these, joined to a numerous body of clergy, form an imposing and magnificent spectacle. The populace is always fond of crowds, apart from processions; curiosity, custom, vanity, love, dress, all are gratified. The Dutch have their *kermess*, the English their races, the Spaniards their processions. The latter are very dubious exhibitions. True religion does not enter into them, and the clergy only perform a part in them.

'There is quite a rivalry between Santa Cruz and Las Palmas, each of the two towns trying to out-do the other in the pomp and splendour of its processions. This rivalry is very profitable to the clergy, who manipulate it skilfully. The processions in Las Palmas are very fine, and, as at Teneriffe, attract an immense concourse of people from the remotest parts of the Islands.

'What shall we say about the *Romerias*? These festivals correspond to the Pardons of Brittany, the Assemblies of Picardy, and the Fenetras of Languedoc. They were religious festivals which drew together every year at certain periods, sometimes in one place, sometimes in another, vast crowds of pilgrims—*Romeros*; whence *Romeria*, an assembly of pilgrims. The religious festival was long ago superseded by a meeting varying in numbers of the lower orders both from town and country; with no other object than dancing, drinking, courting,

exhibiting fine clothes—pleasure, in short; the chapel serves only as an excuse.

'Next to the Romeria of Tacoronte, the most famous is that of the Cristo de la Laguna. The image, which is of carved wood, is roughly executed, but most painful to look at, for the wounds stream with blood. No tradition is attached to this figure, which is celebrated in the island, and no one knows whence it came. The festival lasts two days, during which crowds of pilgrims flock from the most distant parts of the island. The town being too small to accommodate so many, the pilgrims are obliged to encamp in the open air. The effect at night is very picturesque, as then a general ball takes place, with music and fireworks. Meanwhile there is a great consumption of eatables and drinkables in Laguna, and all the petty shopkeepers make the most they can out of the pilgrims.

'These annual festivals, often repeated in fine weather, may be blamed, condemned, or approved, but certainly, from a religious point of view, it would be better to put a stop to them; they do no good either to body or soul.

'The Romerias evidently give rise to a great deal of expense, and their periodical return causes a great waste of time; so much for the material result; morally, they encourage an idolatry often puerile and sometimes ridiculous. The net result of these festivals is great fatigue, an enormous consumption of liquor, and much licentiousness. Therefore, judging the Romerias by their results, one can but condemn them. On the other hand, it may be urged that the working classes in town and country frequent them for the sake of recreation, to forget their

weekday toils, fatiguing their bodies, it is true, but at the same time forgetting their troubles. The next day they are wearied, their purses are empty, and their hardships remain, but what does that matter? They must go to the Romeria; it is the custom. They come back with empty pockets, tired and worn out; they vow they will never go to another, and go the very next year. It is the same all the world over. There is no longer any excuse for Longchamps, for there a pilgrimage is made to a sanctuary which has ceased to exist; the Carnival in Paris brings out 500,000 simpletons in the midst of cold and rain, crowding the boulevards under pretence of going to look at the masks, which have not been seen for the last five and twenty years; the Bois de Boulogne, the Prater, Rotten Row, and the Prado, where the same persons are drawn by the same horses and carriages along the same drive 300 times in the year, prove that such customs belong to all countries. Let us not, therefore, be too severe on these Islanders who frequent the only festival, the only opportunity of meeting other people, which lies within their reach. Let us content ourselves with recommending a little more moderation, and abstaining from liquor and from the fighting which results from it.

"The Island clergy, who possess some influence over the peasants, have scarcely any hold over the intelligent classes, who yield them only nominal respect. Among the townspeople there is a certain degree of unbelief which is not so apparent in Spain. The clergy exercise over the rural population an influence almost justified by the interval established by education between the pastor and

his flock. The confidant of the whole parish, lawyer, and adviser of the mayor and of the council as well, sometimes a doctor also, as we said before, the priest is beloved and esteemed. It is astonishing that in his position he does not exercise a greater influence on national life, education and politics, but this may be accounted for by the daily development of a new feeling in the Islands; a beginning of independence which growing prosperity increases daily. At present there are in every village old men who remember the old order of things, and who have compared it with the new and drawn their own conclusions. If primary education should complete the work, it will be impossible for the clergy to regain their former footing; on the contrary, the separation will become every day greater and more decided. It will take a long time, it is true, to diminish among simple-minded people the blind faith and credulity which satisfies the cravings of their imagination; it will never be completely destroyed. The love of the marvellous, the taste for the pomp of Romanism, the churches turned into theatres, the flowers, music, beautiful statues, the fragrance of incense, all these things, so repugnant to the quiet common sense and cool reason of northern races, have an immense influence over the souls, minds, and senses of southern nations. A considerable amount of progress must, however, have been made when we see the Church reduced to inaction, with the exception of its material manifestations, and the clergy deprived of their possessions, without political influence, limited as regards money to their salaries, powerless to get it voted to them, not even able to make wills,

beyond such rare exceptions as are to be found in all countries, even Protestant ones.

'Recent calculations proved that the Spanish clergy, amidst a population of 16,000, rather exceeded in number the French clergy, and that the budget for public worship was exactly double that of France. There are rather fewer priests in proportion in the Islands than in Madrid, about one per cent. less; and the power of the clergy is not so great, not having such a concentration of military and civil power to lean on as in Spain. In the Islands, the Government is to some extent constitutional, while in Spain it is only nominally so, being in reality despotic. In the Islands the clergy do not serve for the delegates of the central Government to lean on, and these delegates do not carry out the aspirations of the clergy as is the case in the Peninsula; and the Canarians have already shaken off the Roman Catholic torpor which is so striking in some of the Spanish provinces. By means of commerce and agriculture, which have produced wealth, the Islanders are escaping from the fatal circle of idleness, ignorance, and misery which Romanism traces everywhere, and which the Spanish Government has protected and developed, leaving the rural populations in a frightful state of ignorance. The Islanders, more and more emancipated, will live happily and prosperously on a fertile soil, in a healthy and invigorating climate, and an atmosphere breathing of perfumes. Priest and King becoming less powerful each day, national life will become more vigorous. Only let there be schools, and the Canarians will make rapid progress; a liberal education alone will put an end to the

mischievous influence of the priests. Such an education is indispensable, and should be organised at once.

'Even in the case of a free church in the State, priests will always be needed, and the nation must take proper means to keep their power in check. The Romish clergy are interested in keeping men in ignorance, and only attempt to instruct them in such matters as may keep them dependent. The State, on the contrary, ought by means of education to lead men to the consciousness of their strength and freedom. But what sort of education should it be? I prefer the Swiss plan, according to which religious education is entirely separate.'

'I prefer the American plan,' said Goatbeard. 'You may remember, gentlemen, that some time ago the United States Congress decided to offer a prize for a musical composition. The practical American Republicans chose for the subject "The Constitution." You cannot imagine the torrent of French ridicule on the subject. What, "Every American is free" to be set to music! What, "Justice," "Government," all the articles of the Constitution, in short, to be set to music and sung as solos, duets, quartettes, and choruses! How they laughed!'

'Laughing is such an excellent thing,' said Brünner, 'that you had better die than never laugh. If I were not a Swiss, I should wish to be a Frenchman, for no other reason than to possess that precious faculty of laughing at everything, at other people and at one's self.'

'How is it,' continued Goatbeard, 'that the clergy have succeeded in driving into the heads of a hundred millions of ignoramuses litanies, for example, and the customary

prayers? By setting them to music. How do they teach spelling to children too young and inattentive to be taught in an ordinary way? By setting it to music. And is it more extraordinary to set to music, in order to imbue the minds of the population with them, the great principles of liberty, equality, and fraternity, the moral rules of the duty of man, and the rights of citizens?'

'If we laugh at the Americans,' said Brünner, 'it is because we have not yet thoroughly shaken off the Romish yoke which has so long oppressed us. If the Spaniards would set to work to teach for twenty years only the duties and rights of citizens by the same methods the clergy have employed for eighteen hundred years to disseminate their teaching, the whole of Spanish society would be for ever regenerated. If, instead of being taught to read by spelling out the fables of the priests, future generations were made to imbibe independence, political liberty, and the rights of man, together with Christian morality, such substantial food would transform the race. When we reflect that a people stupefied by such an education as they have had, have still sufficient energy to rise in arms in spite of the length of time they have been crushed by despotism and credulity, we cannot but acknowledge in them a degree of intelligence and common sense reassuring for the future; and we must feel convinced that the return of past evils would be for ever impossible after a Republican education for two generations.'

'Now you are going back to politics,' said Krauss. 'Well, this time, for once, I agree with you.'

'Let Spain,' resumed Brünner, 'still pay her clergy if she likes, but let her manage national education in a genuinely Republican manner, as it is more difficult to reform than to found; and she can easily establish it at once on liberal principles, for primary education, strictly speaking, does not at present exist. Let her reject the doctrines of submission, patience, and servility, and teach the children those great social principles which teach man his individual worth, liberty, equality, and fraternity, the basis of all morality; it will then be seen that if men are made to live together, as even learned doctors are forced to acknowledge, it is because they are apparently endowed with sufficient good sense and intelligence to understand the necessity of living under laws approved by reason, and which ought to control priests, soldiers, citizens, and the Government itself.

'Clerical power has been greater in Spain than in any of the sister Latin nations; and to this fact is due the depth of her fall, during which she has drunk to the dregs the cup of bitterness, shame, and misery, which the dynasty and the clergy held to her lips. The Philips and the Inquisition at the same time! It was too much.

'The Islands suffered less than did the Mother Country from clerical crimes and excess of power, but they have suffered morally: living members of the national body, the moral decay of Spain has injured them, for they have participated in it. The country of the Islanders was not the Canaries only, a great part of it was in Europe. Every wound dealt the Mother Country made their hearts bleed, united to it by the powerful ties of common descent,

language, and customs. If *autos da fé* were rare in the Islands, if despotism exercised there a somewhat mild sway, these results were due to their situation: power has not such long arms as some imagine, and where its direct grasp cannot reach, it is at least possible to live. The Islanders also possess more liberty than continental people, for they are more closely united, and form, as it were, one great family; and then, living at the base of those immense volcanoes, which may overwhelm them any hour, remembering the autocthonous race and the dreadful end of the Atlantes, and living in a liquid prison, closed in by the terrible sea, the Islanders feel that nature has more power over them than man. The might of man seems insignificant to those who are accustomed to feel the earth tremble under them, who see the working of scarcely extinct volcanoes, and hear during the silence of night the mighty voice of the ocean.'

Brünner ceased, and a long silence ensued. We felt that his narrative, perhaps exaggerated as regarded certain points, required softening down before it could be published. It was necessary, however, to preserve somewhat of his aggressive, violent method of proceeding, but we have suppressed passages which it appeared imprudent to publish, with regard to clerical morality, the manœuvres of the priests to retain the power which was visibly slipping from their hands, &c. We have done so the more readily as they are things of the past, or very nearly so, in the Canary Islands.

Let me add a few words. Spain has profited less than the Islands by the *desamortizacion* (abolition of mort-

main) of the ecclesiastical property, for a very simple reason: in the Islands everything is weaker—passion, power, fanaticism, rancour, disease even; it seems as if the sea, by keeping the climate temperate, exercises over mankind an influence favourable to good and unfavourable to evil, opposed to every excess. The bitterness aroused on the continent by the law of *desamortizacion* has either been unknown in the Canaries or has completely died out.

But matters have changed for the better, even in Spain. On Sunday, April 10, 1868, Brünner attended the Protestant service held privately at the English consul's. On January 24, 1869, Brünner, Krauss, the Canadian, and I were present at the opening of a church for Protestant public worship, amidst an immense crowd who would have burnt us alive a hundred years ago, and excommunicated and stabbed us six months ago! The Revolution of September had taken place in the interval.

The Canaries have been so completely transformed, from a clerical point of view, in the last forty years, that it is quite curious to study the difference in the old authors and accounts written in the early part of this century. Small collars, small cloaks, small shoes, and large hats, cassocks and surplices, guilds, mendicant orders, barefooted or otherwise, priests, abbés, canons, monks of every order, swarmed in the streets and houses, followed by beggars and vagabonds of every kind, the whole motley crowd speaking, gesticulating, smoking, blessing, begging, forming all together an assemblage so strange, so immoral, so dangerous, that captains of ships

dared not allow their crews to land. Misery, ignorance, fanaticism, and licentiousness, were the too visible fruits of three hundred years of clerical rule. Now, everything is changed, and there is less misery than in Europe. With twenty years' enjoyment of liberty and compulsory education, the Canaries will far surpass the most favoured provinces of Spain in civilisation, progress, and well-being. We hope so, and are confident that it will be so.

Chapter VII.

CONSUMPTION.—SANTA CRUZ, OROTAVA, AND PUERTO CONSIDERED AS SANITARY RESORTS.

Before entering on the subject of the various considerations which in our opinion render Teneriffe one of the most important sanitary resorts, it may be profitable to say a few words on the terrible diseases of the respiratory organs.

It is unhappily too true, as statistics prove, that diseases of the chest carry off on an average one-fifth of the population of Europe. This is one great cause of depopulation, and not the only one, for as consumption is hereditary, consumptive patients ought not to marry. They have no enjoyment of any kind, amusements kill them; they are, as it were, pariahs in the midst of modern society. The subject is, therefore, one of interest to individuals, to families, and even to the State, for in armies composed of picked men between eighteen and twenty-eight years of age, the average mortality from this disease amounts to one in six; a most enormous average.

Consumption is doubtless hereditary; is it also incurable? No: it is now unanimously agreed that it can be cured; people have been known to live fifty years with tubercles in the lungs; others with only one lung have been known to die from accidental causes or from old age.

The disease is curable when the tubercles have not spread over the whole of the lungs, or when they harden, and the cicatrisation of the cavities takes place of itself.

How does the cure work? It is a mystery of nature hitherto unexplained. However, observations, confirmed during some centuries, have proved the salutary effects, first, of change of air and living in a warm climate; secondly, of a sea voyage.

It has always been allowed that a sea voyage has a powerful curative effect. Consumptive sailors are well only when at sea; once on shore, the malady resumes its progress. Others who spit blood on land get rid entirely of this symptom when at sea; others suffering from hectic fever have gone to Brazil or Tahiti, or have remained at sea for four years, and have found an entire suspension of the morbid symptoms; some even have met with a complete cure. Attempts have in vain been made to explain this phenomenon of the arrest of consumption by the influence of the sea. Fruitless endeavours have been made to reproduce marine emanations on land; the same effect cannot be obtained. In spite of the food being often bad, the want of comfort, and winds which on land would aggravate the disease, the efficacy of the sea is indisputable.

Living in a warmer country than that in which the disease was contracted will often arrest its progress, especially in the earlier stages. Children about whom there is any fear, if sent to a warm climate, will grow strong there, and very rarely suffer from this malady in later life. *Principiis obsta*, this medical rule is almost absolute.

The curative influences of air, water, and locality were pointed out in the earliest days of medical science by Hippocrates, in the most celebrated of his treatises. Modern science, the depositary of the accumulated wisdom of centuries, ratifies the principle laid down by the father of the medical art, and his scientific dicta having been confirmed by the experience and observations of twenty-three centuries, there is no longer room for doubt. The Grecian and Roman physicians sent consumptive patients to winter in Egypt, and to make voyages on the Mediterranean; history informs us of this and of the good effects of the plan, which has been in practice ever since.

At the present time, sea voyages, and a change to a warmer country than that in which the disease has shown itself, are much more in vogue than formerly, and within the last fifty years the number of travelling invalids has increased tenfold. This is owing to various causes: the termination of the great wars and the state of relative peace, which permits the most timid to live in a foreign country; the greater comfort, the advance of civilisation, which insures the invalid and those who accompany him pleasant society, luxuries, and scientific care; steam, which, both on land and sea, has made journeys much quicker and less fatiguing; the telegraph, which places the invalid within a few hours of his family, &c. The number of invalids who go in search of health to a warmer sun and a purer air, crossing the sea in magnificent steamers with every comfort they can desire, is now considerable, and may be calculated at a hundred or a hundred and twenty-five thousand annually.

Has this change of air effected any cures?

Invalids think so and say so, and that alone would be sufficient; doctors admit it, and statistics prove it. In cases where the age, means, and state of the patient allow it, it is the doctor's duty to recommend change of air.

The difficulty consists in the choice of a locality.

For rheumatism, liver complaints, and certain other diseases, the doctors are able to point out the exact place from which the patient will derive benefit. But it is otherwise with consumption; at least the question is more complicated. Water, air, and locality act upon the patient: which of these is the agent that benefits him? the three together, one of the three, or two of them? A great deal has already been done, various waters have been fully analysed, the air has been weighed and analysed, and positive conclusions can be drawn on these two points, but scientific men are as yet far from having reached an equal degree of knowledge with regard to locality, and this subject is the most important because it is the most variable; it is the point towards which all researches converge.

During the last ten years, in all places which are of recognised importance from a medical point of view, scientific observations have been made by the aid of which the nature of the soil has been laid down, the hygienic conditions, food, lodging, temperature, barometric pressure, humidity, winds, &c. The shelter afforded by mountains has been studied, the course of running streams, vegetation, &c. Photography has even placed the most distant resorts before the eyes of the physician and the invalid.

It is true that some of these observations have not been carried on for a sufficient length of time to enable us to obtain such minute and accurate information as could be wished, but in a few years this objection will be done away with, at all events so far as regards the principal points. Some important works, which have attracted a good deal of attention, have made known to physicians, and to fashionable people as well, the smallest winter resorts in France, Spain, Egypt, Italy, and Portugal. Some remarkable books have been published on this subject, and will greatly aid in the solution of the question. In the present state of the science of locality, physicians may decide with far less risk of error if they are well read in recent works on the subject.

If from ancient times down to our own day it has been allowed that a voyage and living in a warm climate may cure or at least ameliorate, prolong existence, and, in extreme cases, make the last moments easier; if locality, air, and water have been studied, and if on the other hand it is allowed that medicine and other remedies are useless, the patient ought to go. It is for the doctor to decide where: he will find in the invalid's age, the degree of illness, particular symptoms, &c., indications of what locality is to be chosen, according to its meteorological conditions.

On this subject I give some observations taken from an English book, not perhaps indisputable, but which if admitted would, it appears to me, be productive of great results. The physician finding that the patient is capable of removal, will ask himself first, whether the invalid

would derive benefit from a brisk, bracing air, which would restore his shaken nerves, above all if he be free from hæmorrhage and have need rather of a dry, not very warm air, than of a soft, damp, relaxing atmosphere; in such cases some parts of Switzerland or the Pyrenees, Eaux-Bonnes, for example, would be suitable for the summer, and Pau in winter; secondly, if the invalid should require a dry, warm air, in certain stages of the disease, among women especially, if a moist climate would be hurtful, then Cairo or Malaga should be recommended, and Santa Cruz de Teneriffe especially, as winter residences, the Alps in summer: thirdly, if the patient should require a very equable climate, and a warm, moist atmosphere, and if he should be subject to hæmorrhage, Madeira alone should be recommended as a winter residence, and Orotava for the summer.

If these distinctions, a brisk, bracing, temperate climate; a warm, dry, and tolerably equable climate; a warm, moist, very equable climate; be not agreed to, it would be easy to draw out others more accurate; but we must have them of some kind. Although diseases of the respiratory organs vary in each individual, yet, as it is possible to class analogous cases under one category, we cannot but take pleasure in thinking that in this way practical results might be attained, by which indecision or arbitrary decision in the choice of locality might be avoided.

For the last 150 years, English physicians living in Madeira for the express purpose of attending consumptive patients, or for their own health, have studied the disease

and the country. Towards the end of the last century, and under the Empire, a great number of eminent physicians, English, German, Russian, Spanish, and Portuguese, the greater number from the colleges of London, Paris, Jena, Heidelberg, Madrid, Coimbra, and Edinburgh, studied there the question of cure. One of them, named Mason, struck with the uselessness of therapeutic researches, and seeing the results of merely living in Madeira, asked himself whether, as every one was agreed on the question of living in a warm climate, it would not be more logical to study the subject of locality? He made two distinctions; warm climates and dry climates. Meteorology did not exist before his time, he invented it, so to speak; his hygrometrical studies have never been surpassed. He set up a kind of observatory *ad hoc*; he wrote to England for the sake of directing attention to the study of climatology. At the same time making experiments on himself, he adopted as the basis of his classifications hot and dry climates, hot and damp climates, those which were bracing without being exciting, &c. Finding that a warm, damp climate was injurious to him, he resolved to search out the mysteries of hygrometry. He applied himself to the work with so much perseverance and energy, that, on discovering that his studies were promoting the progress of his malady, he resolved to leave Madeira, went to Nice, and died there some time afterwards at the age of twenty-seven! He was a loss to mankind; his power of intuition was remarkable, his industry extraordinary. He left some very valuable works, which, unfortunately, remained unfinished at his death.

Suppose now that Mason's observations and labours as to the effect of the greater or less humidity of winter resorts on certain stages of the disease, were to be carried on by physicians studying the influence of such or such a climate on a particular phase of the malady; if such a hypothesis of practical studies and observations could be carried out for several years, it appears to us certain that we should be able to lay down some principles, valuable starting points, which would help future physicians to determine the most suitable localities, whereas at present the doctor has only been guided by family convenience, the means and wishes of the invalid, &c., all matters foreign to the individual case of the patient.

Change of air is determined on, science prescribes it. The invalid makes up his mind; when autumn comes, he will go. And now a new difficulty presents itself to the physician—the fashion!

It is not the first time that fashion has interfered with physic. When Louis XIV. was saved by an emetic, contrary to the advice of his physician, Vallot, emetics, praised by alchemy, condemned by the doctors, reinstated once more by Act of Parliament, became the fashion. Dusausoi, who, by administering an emetic at Calais, had undoubtedly saved the king's life, became the hero of the day. In short, emetics were sanctioned in 1666 by the faculty of Paris, who yielded to the fashion. Who may count the victims of the systematic use of them? They are now once more interdicted.

Nice is at present the great attraction. It has been made a very agreeable place of resort; balls, theatres,

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promenades, concerts, excursions, abound there, all excellent things for invalids if they are extremely cautious in their enjoyment of them, but dangerous from their very attractiveness, for one must go to them to be in the fashion; one meets there one's friends, acquaintances, and fellow-countrymen. People dress at Nice as they do in Paris; French, the universal language, is spoken there; such and such a Prince, Princess, perhaps an Emperor, will be there. It is, however, a place far from suitable to the majority of invalids. What of that? Nice is the fashion; and why should we be astonished? Has not a name sufficed, some considerable political influence, a lucky hit of a fortunate speculator, buying land, building villas, advertising extensively, contriving to interest some great personages in the enterprise, some French or English doctor, hotel keepers, letter out of carriages, horses, and donkeys, newspaper writers—has not one man of fashion sufficed to attract 100,000 visitors every year to a place inferior to numbers of others, where you pay a sovereign for what is worth a shilling, where the sea-water is mixed with fresh water, and casts up on the shore those disgusting sea-nettles whose mere contact inflames the skin? Let there be but hotels with good cooks, a casino, gaming tables, dancing, dress, and luxury, and by dint of advertising, a new watering place is discovered! What matters the locality?

Ten thousand people, rich, and in good health, go to Nice, it is a good thing; but one thousand invalids go also, and that is a great evil, for about five hundred perhaps are ordered to go there. The unfortunate doctor

thought, of Vernet, Amélie-les-Bains, Pisa, Malaga, Teneriffe, or Madeira; but what would his patients say?

Vernet, doctor! why, that is a horrible hole. Pisa! it is a city of the dead, with a cemetery for a promenade. Malaga! oh! think of Spain, the cookery! Spanish, who can speak it? bull-fights, assassinations, and revolutions! Madeira! Teneriffe! think of the sea voyage!

The patient may yield subsequently, but then it will be too late, for the terrible disease makes rapid progress. In the first stage there is much ground for hope; in the second, very little; in the third, when he has decided to go, it will be only to die in a foreign land.

Fashion, then, requires the invalid to go to Nice, Rome, or Naples. What a mistake! What shall we say of Nice with its winds, sometimes too hot, sometimes too cold? 25° of difference in the temperature! Or of Rome, with all its attractions of past and present grandeur? 27° of difference! no shelter, a cold lying in wait every time you cross the street. Or of Naples, Parthenope, lying on the sea shore, with her feet in the sunshine? cold dews, constant winds, and 26° of difference in the temperature!

To an invalid, however, who is content to live quietly, Nice, like Pau, offers great attractions. The air is clear and bracing (less so, however, than at Pau), and has a great effect on certain patients in whom the germ of the malady is due to constitutional weakness.

Notwithstanding the acknowledged beneficial effect of living in a warm climate, some unbelievers, born contradictors of every assertion, have made the objection that places indicated as preferable localities are themselves

subject to this scourge. On the other hand, it has been maintained that cold, damp, foggy countries possess the melancholy privilege of engendering diseases of the chest and respiratory organs. This is a mistake. The south of France, Italy, Spain, Portugal, Madeira, and even Teneriffe, afford a proportion of cases very little below the average. There are, perhaps, even more consumptive patients in Madeira than in Teneriffe, owing to a kind of consumption allied to scrofula which is prevalent there.

According to Drs. Mason, Heineken, Gourlay, Burgess, Barral, Pitta, father and son, Juvéneal, all scientific men, and some of them distinguished practitioners, who have devoted their lives to the study of the terrible disease of which we are now treating, Madeira, Teneriffe, the Cape Verd Islands, above all, Africa, engender consumption to nearly as great a degree as do France and England; but they have all agreed, first, that the fact of the disease predominating in any particular place is no reason why patients should abstain from going there: secondly, that those countries which are warm in winter, and possess the least variable climate, are preferable to all others. These principles have been recognised by all physicians since the salutary influence of those very places where consumption is prevalent has been proved. Madeira, Nice, Malaga, Pau, Hyères, Palermo, and Cairo rival each other in the number of cures effected, and statistics, every day more accurate and conclusive, corroborate the assertions of the invalids, natives, and doctors; and yet consumption is as indigenous in these places as anywhere, whatever may be the cause.

No other objection has been offered to the resort to a warm climate; and this objection is not a very serious one, for if there be any place on the earth where consumption is unknown, it does not follow that it would be beneficial to consumptive patients. Physicians who go for the sake of their own health to places of winter resort know very well that consumption prevails there; or if by chance they are ignorant of the fact, they are soon enlightened, for immediately on their arrival they are consulted by all the invalids of the neighbourhood, who, always credulous, imagine that a foreign invalid physician, come for his health, must do them more good than those whom they are accustomed to consult. Of the invalids, statistics show that physicians are the most numerous; next come lawyers. This is owing to the fact that, knowing their own state from the beginning, they do not delay, but seek change of air in the earliest stage of the disease. They are almost always benefited by it. An English physician, named Smith, went to Teneriffe twenty-five or thirty years ago, and died there last year: to live for thirty years with the disease is equivalent to health, especially when one is able to practise as a physician, to marry, and to write. This fact being granted, the large number of doctors who go in search of health to the African Islands would, in our opinion, suffice to establish their supremacy. Last winter, at Madeira, one patient in fifteen was a medical man; there was scarcely one in sixty at other winter resorts. This fact is very instructive.

Spain pays as large a tribute to consumption as the

rest of Europe; and although she possesses one of the chief resorts in the world, Malaga, and Palma and Barcelona as well, yet if she could find a better locality at a distance of four days by sea from Cadiz, in the island of Teneriffe, it would be most fortunate for her: such a locality is to be found at Santa Cruz and Puerto, preferable on many accounts even to Malaga, for great towns always entail considerable drawbacks—gas, dust, risks of catching cold in theatres, concerts, churches, and large assemblies. These two first-class localities are made of still greater importance by Orotava, another town in Teneriffe, by means of which the stay of the invalid in the island can be prolonged during the whole of the year, as we are about to prove.

Santa Cruz and Puerto have both been thoroughly tested. After the foundation of the wine trade,[1] numbers of English came to Teneriffe and Puerto. They soon remarked, as they had done in Madeira, the influence of the climate in arresting the progress of the disease. Living at Santa Cruz and Puerto, a few hours apart, they communicated their observations to each other, and forwarded the result to their correspondents in the mother country. Accurate observations were first made in 1761. Anderson, the naturalist and doctor who accompanied Captain Cook's expedition, recommended Teneriffe as a resort for consumptive patients in 1772; thenceforth, those physicians who were studying the effects of climate in Madeira came to Santa Cruz to complete their studies.

During the great Revolutionary and Peninsular wars

[1] In the last century, especially between 1780 and 1835.

the continental blockade closed Spain, France, and Italy to invalids as well as to wine fanciers; the African islands took their place. Invalids invaded Madeira, and found there a gentle damp heat, while at Santa Cruz the air was remarkably dry. Some of the physicians finding many of their patients growing worse in Madeira, sent them to Teneriffe. In this they followed the course already established by the invalids themselves, who, attributing their unsatisfactory state to the warm, damp climate, went for the sake of the dry heat to Teneriffe, and found themselves the better for it.

Then came steam. When the two islands were once connected by an English and Spanish fortnightly service, there were no longer any difficulties; now, it is almost a settled thing that the two islands should supplement each other as sanatoria.

Some invalids go direct to Santa Cruz, and pass the entire winter there; but they are very few. The hotels, with one or two exceptions, are uncomfortable; the furnished houses do not possess those indispensable comforts which those of Madeira offer: in a word, the inhabitants, the municipality, the Government, have done nothing to attract invalids; so that the patient has not the same conveniences in Teneriffe that he has in Madeira, although at a greater cost he can easily procure anything he wants.

It is acknowledged at the present day that Santa Cruz possesses the purest atmosphere in the world. The winter is dry, there is but little rain, and it never lasts for more than a few hours. Directly the rain is over, the invalid can

go out, and the ground shows no trace of damp. It is somewhat warmer there in winter than at Madeira. These two facts are owing to the geographical position of the island, which is more southerly than that of Madeira, and to the relative position of Santa Cruz. We need, then, say no more on the subject of Santa Cruz or Puerto, whose reputation has long been established.

We described the towns of Santa Cruz and Puerto at the beginning of this book; we must now describe Orotava, for we are about to treat of this little town as a medical station complemental to the other two.

The town of Orotava is built on the slope of a hill stretching from east to west; the incline from the mountain to the sea is steep. Two cross streets are the only ones in which invalids can walk; the rest are all but impracticable for them. The ground on which the town is built is exceedingly uneven, a hundred square yards of level ground are nowhere to be found except in the two horizontal streets, where the inclines are short and very gradual. The mountain springs flow into the town, but, from a hygienic point of view, they can have no bad effect, for they flow down covered channels. The large artificial reservoirs for collecting in winter the superfluous water which will be needed in the summer are built of stone or concrete, and there is no serious danger of deleterious miasmas arising from them.

Few small towns are built in such a singular way as Orotava. The streets form, where they meet, the most unexpected angles; they begin by being broad, become narrow, and end as they can. The lines of the buildings

are by no means straight; the old convent walls bulge outwards or inwards. In the cathedral you go up steps on the right and down steps on the left; the cathedral square is of a shape unknown to geometry. A magnificent palace built of stone is deserted, because the church bells rang almost in the rooms, the church and the palace touching at one corner. The angles of the streets do not correspond, and the squares are crooked. In short, it is easy to do this place the honour of losing oneself in it, and yet the space on which it is built is not larger than that occupied by the Louvre and the Place du Carrousel.

The houses of the aristocracy attract the eye by their balconies and terraces. These houses of the patricians or wealthy persons have been built according to a law which explains the singularity of the town. Every owner thought himself obliged, for the sake of the view, to make his house face the mountain, for no one would have any neighbour, much less an opposite one. At the very top of the town may be seen the modern mansion of an ancient family, which is now deserted and in ruins; it was placed so very high as to be perfectly inaccessible. Every good house is in a picked situation, chosen for the sake of a garden and a fine view, and would be delightful as a residence for invalids; the air plays freely through the courts planted with orange trees, or the *patios* with their paved cloisters. Nearly all have galleries covered in on one side, and thus afford facilities for sheltered walks in the open air.

There are but few carriages at Orotava, and very little traffic, so that there is scarcely any dust. The elevated

situation of the town, and its garden-like environs, protect it completely from the clouds of sand so frequently raised by the wind at Nice, Naples, Malaga, and Pisa.

Living is cheaper at Orotava than in Madeira, very much cheaper than at Nice. There are two physicians in Orotava and another in Puerto for 4,000 inhabitants. Thus it possesses the conditions of comfort and salubrity, and if its climate be satisfactory as well, Orotava must prove an important resort. In the first place, the summer months are less hot at Orotava than at Santa Cruz, which is uninhabitable for Europeans at that season; secondly, it is exposed in winter to the cold damp west winds, and to a few fogs in December and January. In the spring, from April to the end of May, and in autumn, from September to the end of November, Orotava supplements Santa Cruz most delightfully.

The smaller the amount of variation in the temperature, and between the days, months, seasons, and years, the greater is the importance of any locality considered as a resort for consumptive patients. Statistics prove this. Let us notice the scale of localities. At the head is the island of Saint Kitt's; the difference in temperature amounts to only 7° in the year, it is the most equable in the world. Unfortunately, the mean temperature is 81° Fahrenheit; 86° in summer, the heat of a hot bath, and 79° in winter; such a climate is insupportable to Europeans. Next comes Madeira, which varies 8° 2′; 63° in winter, and 71° in summer. Saint Michael's, one of the Azores, varies 10° 46′; 58° in winter, and 68° in summer. Santa Cruz, in Teneriffe, varies 11° 80′; 65° in winter,

and 76° in summer. The climate of Santa Cruz is delightful in winter, 65°; in summer it is too hot, 76°; whereas it is 71° in Madeira, and 68° at Orotava.

Our readers may judge from the following list of the difference between the stations in the Fortunate Islands, where the difference of temperature is only from 7° to 11°, and those of Europe, which, with the exception of Malaga, have been so greatly overpraised.

	Variation		Variation
1. Pau	27°	6. Palermo	22°
2. Rome	27°	7. Jersey	19°
3. Naples	26°	8. Lisbon	18°
4. Cairo	26°	9. Malaga	13°
5. Nice	25°		

The beneficial effects of a sea voyage having been proved, as we said before, Madeira or Teneriffe must be preferable to any place in Europe, even if all other conditions are equal, on account of the voyage. How far superior, then, are these Islands, when we reflect that we find here the three types formerly indicated; a moist, warm climate in Madeira; the purest air in the world, warm and dry, at Santa Cruz; mountain air, without the changeableness we find in Europe, at Orotava; added to which the patient can have sea bathing, the whey cure, and the grape cure.

In a pamphlet, remarkable as much for its poetic language as for its lofty sentiments, the Count de Belcastel has suggested Orotava as the *desideratum*. He makes out this delightful valley to be not only the Elysian Fields, and Garden of the Hesperides, but also the perfect, unique locality where invalids will necessarily

and exclusively recover their health. Alas! such an Eldorado does not exist on earth; at Teneriffe, as elsewhere, there are drawbacks; at Orotava, as a winter residence, there would be still more. The very figures the author quotes are not trustworthy; the difference of temperature given by him as 7° 9′ is not conclusive, for it is the result of experiments made in a room. Now the maximum and minimum of temperature ought to be calculated from experiments made in the open air: an average of five years at Orotava gives a difference of 12° to 13°. Indoors the variation amounts to 10° 27′ during the same period, and it will be easily seen that the thermometer is a most untrustworthy guide when used in the house only. The rooms may look either to the north or south, the windows may be large or small, few or many; even the height of the storeys will make a difference, and there will be a sensible difference of temperature between rooms in the same house. But even if we reckon the difference at 7° or 8°, which would be marvellously small, there are a number of other circumstances which, without much affecting the temperature, would exercise an unfavourable influence over the disease. Winds, rain, damp, fogs, barometric pressure, all require to be taken into consideration. Let us go a little into this matter.

Orotava is 2,200 feet above the level of the sea, and nearly midway up a steeply sloping mountain 4,000 feet high. Not being, like Funchal, spread out at the foot of a steep conical mountain, the winds blow all round it, and the dominant winds at Orotava come from the sea, from the

west and north-west, surcharged with a certain amount of moisture; those from the north come across the mountains, and are drier but colder. The temperature is variable. When the warm southerly winds blow, Orotava, although completely sheltered on that side by the Cañadas and the whole chain of the Sierra, is yet exposed to the effects of the atmospheric pressure which is so curiously unequal in the two belts into which the island is divided. People in good health find the general temperature delightful. Excepting a few days of extreme heat, and of the *levante*, the summer is pleasant throughout the northern belt, even on the sea coast. The summer residences built by the rich, the *Ramblas*, prove this. At Orotava and Laguna the summer is by no means trying; they are, in fact, resorts for the summer, spring, and autumn —not for winter, for December and January. Hygrometrical experiments have been made as to the number of wet days only. Even with this restriction we cannot admit M. de Belcastel's calculations, which give forty-five days. This calculation is correct for Santa Cruz, but at Orotava the rainfall is greater. There is often, too, wet there without rain, for there is often a fog at the height of one or two thousand feet, which will wet one's clothes in the evening. These foggy days are not reckoned as wet days, and yet they produce a sensible effect on the hygrometer. There are, in fact, sixty-two, not forty-five, wet days at Orotava. Can it be otherwise at an elevation of 2,200 feet? Puerto, on the coast, is very different and far drier. If M. de Belcastel had resided for a twelvemonth in Orotava, he would have discovered the facts just mentioned, and

would have found them confirmed by the habits of the islanders. With the exception of the merchants and tradesmen, whose occupations oblige them to remain in the town, all the wealthy families leave Orotava in the winter and go for a month to Santa Cruz, returning in the spring. Those who for various reasons cannot go to Santa Cruz go down to Puerto. There is an irresistible instinct of migration. This can only be based on some necessity arising from the climate, and the natives obey this law without thinking of it, from mere force of habit.

While the rich peasants of Orotava put on their *mantas* or ponchos, the gentlemen walk and chat together wrapped up in their *capas*; for about nine o'clock in the evening the atmosphere is sufficiently chilly to make everyone put on some extra wrap. Invalids, it is true, ought not to go out in the evening or early in the morning; but, as this chilly air is more damp than cold, the damp always penetrates the houses in some degree.

Not only is the mountain on which Orotava is built 4,000 feet high, but also, being the most thickly wooded in the island, it is the dampest and most abundant in water. It has seven important springs, and it is this very damp which partly feeds these springs, thus forming a circle from which there is no escape.

The heat absorbs and raises the moisture, which falls again after sunset, owing to the refrigeration of the atmosphere. Almost all the year round a light vapour forms on the mountain; it gradually condenses or else extends farther. It is seldom thick—between fifty and a hundred

yards generally. It begins at the northern extremity of Mount Florida, and spreads towards the Realejos on the south-west, touching the edge of the Cañadas and covering Orotava. This cloud is shaped like a long scarf. Some have reckoned its thickness at a thousand feet. It certainly varies, according to the heat of the sun and the direction and strength of the winds. From the sea the long scarf can be seen floating over Orotava. The base of the mountain is clear, and the peak is visible above it; towards night the cloud lowers, and in the morning the atmosphere is perfectly clear. It is then rather cold, the air being extremely rarefied.

In spite of these indisputable facts, M. de Belcastel affirms that 'linen hung out to dry and botanical specimens dry very quickly. There are no fogs whatever.'

In our opinion there are three mistakes in this sentence.

When the sun has come round the mountain and gained a certain height, there is nothing to intercept its rays from ten to four o'clock; the cloud, being not yet formed, does not interfere, and it does not take long to dry linen in a tropical sun—two hours at most. But in the shade it will not dry at Orotava quicker than anywhere else, and not nearly so quickly as at Santa Cruz. Dry linen put out at eight o'clock in the evening will be wet next morning. So that we may say: 'In order to soak linen at Orotava, you need only put it out at night.'

As for botanical specimens, we could not dry our own in April at Orotava *in the shade*. Now it does not do to

put them in the sun; in a few hours they would entirely lose their shape and colour. Twice a day we spread them out on the terrace in the shade, each plant on a sheet of blotting-paper; at night we pressed them in large portfolios made for the purpose, weighted with lead and all the heavy articles we could find. At Santa Cruz alone we succeeded in drying them thoroughly in a few hours during an east wind.

With regard to fogs, it is proved that there was one on April 24, 1868. It is true that you very rarely have in Orotava fogs which cover the ground, thick and heavy, like English fogs; ninety-nine times out of a hundred they are only moist vapour held in suspension in a foggy atmosphere.

For these reasons Orotava, in our opinion, should be avoided in winter—from December to the end of January—and as a decisive proof let us add: physicians and invalids should remember that the culture of cochineal, which requires a dry climate, ceases just below the town, and is replaced by that of the potato, which requires damp. This is a significant fact. The distribution of plants, the vegetable zone, is the irrefragable proof of the temperature of Dame Nature, not that marked on the thermometer or hygrometer.

Exaggeration, poetic effusions, national conceit, patriotic pride,—none of these can lower the mountain on which Orotava is so beautifully situated one inch—2,200 feet. Is it not enough to possess so many advantages—general prosperity, frequent wealth, cleanliness, a pleasant climate, health, wholesome and remunerative labour, the finest

flowers, fruits, and vegetation, in the most beautiful country in the world?

To wish to make of Orotava a winter resort possessing every advantage as well, is too much; Orotava does not possess every advantage. Enough that it is a delightful residence in summer, the most beautiful, without a doubt, that can be found anywhere, and the most wonderful resort for invalids in spring and autumn. Puerto, Orotava, and Santa Cruz supplement each other most completely. To attribute to Orotava too much importance might lead some physician or invalid into error. This must not be; we think it our bounden duty to point out the objections to it as a residence for the two or three winter months.

M. de Belcastel's praiseworthy and benevolent intentions are in every way to be admired. We think with him that it is important to call the attention of European and especially of French physicians to the Fortunate Islands, the Garden of the Hesperides, the Elysian Fields, which to all these poetical titles might, with Madeira, add the name of Salubrious Islands. Would that M. de Belcastel may be listened to, especially by French physicians! Would that they may be convinced, and prescribe the African Islands! It makes one melancholy to reflect that out of more than 8,000 invalids who have frequented these resorts in the last twelve years, only *seven* have been Frenchmen. It is humiliating to see in Madeira fifteen or twenty medical men, in Teneriffe four or five, Spanish, Portuguese, English, Russian, German, and American, who have gained the diploma of the French faculty at Paris or Montpellier which was to secure their

success, while not a single French physician dreams of coming to practise in the Islands, where he would make his fortune. What prevents them? The voyage? that would be too contemptible. The language? that is a trifle; three months' study will suffice, and just at first it can be dispensed with, for these *barbarians* understand French very well. But to leave one's family, one's home, to go into exile, in short? yes, that is a calamity. It is no doubt better to pine away in an obscure corner, scarcely able to keep body and soul together, as is the lot of those who follow a liberal career in France. Meanwhile the Island physicians make their fortunes in ten years.

To sum up this complicated question, Madeira, Orotava, and Santa Cruz are in our opinion localities which satisfy every requirement. They are near together; and if Madeira does not suit the patient, he will find the opposite conditions in Teneriffe. At Madeira he will find moist heat, a relaxing climate, especially suitable for cases of pulmonary catarrh, croup, hæmorrhage, &c. At Santa Cruz the climate is warm, dry, tonic, superior to Malaga, and suitable for debilitated constitutions, in which the various forms of consumption develope rapidly. It braces the nerves and quickens the circulation. From the spring to the end of autumn Orotava offers those advantages sought by invalids who resort to Pau, Eaux-Bonnes, and Switzerland. Puerto is half way between Santa Cruz and Orotava, and partakes of the nature of both.

Finally, Saint Michael, in the Azores, supplies a want

felt in many cases—sulphur springs. Nature has, we see, done everything for these Atlantic islands.

They must be made known to the world; let everyone help to do this by every means in his power. This task is incumbent, especially on the natives of the Islands, and also on travellers.

The first method to be employed, without which all the rest can be of no avail, is that of *accurate* statistics; for statistics are worthless unless their perfect accuracy is indisputable. Government control alone can secure this. Observations should be made many times a day with regard to heat, winds, barometric pressure, hygrometry, the state of the sky, &c. These observations should be supplemented by the use of an accurate rain-gauge, an instrument which is by no means sufficiently made use of. The Orotava Casino might, if the Government would not, defray the expenses (which would be but small) of this observatory, and employ in it one of its own staff. The Puerto Casino might do the same. The municipality would, we think, find itself obliged to take these observatories under its own care, to spare itself the shame of being outdone in patriotism by individuals. The observations should be published annually. All the scientific magazines would gladly receive and publish these notes.

Nor is this all. Santa Cruz being the principal sanitorium, the town ought to be surrounded by plantations and roads, the promenade already made for two or three miles along the shore should be extended to the south-east, a carriage road added, and plenty of trees planted. At Orotava the Realejos and Garachico roads should be

finished, as well as that to Puerto. By degrees, as they are wanted or likely to be wanted, hotels should be built, and the inhabitants should undertake to let comfortable furnished lodgings. Carriage and saddle horses will be wanted for hire. Villas should be built at the foot of the hill to the north of the town, sheltered from the wind and approached by broad, gravelled, shady avenues. Three or four of the most promising students in the Spanish schools should be sent to take out diplomas in France, Germany, or England. Accounts of local events and subjects should be constantly published not only in Spain, but in Paris and London as well.

Steamers should go at least every fortnight from Cadiz to Santa Cruz, to allow the invalid easier communication with his family and friends than he has at present. Not more than three or four million reals would be required, which could be raised by a capitation tax of less than ten shillings. Even if this capital returned no interest, the Islands would be greatly benefited by this doubling of the postal and passenger service. The mole is too small; it should be lengthened. What is wanted above all is that the inhabitants should bestir themselves, and then in ten years they might make the island a commercial centre, a first-class naval station, and a resort for invalids which would rival Madeira. But, indeed, there would be no room for rivalry; the two islands would not contain all the invalids if the inhabitants were to make such efforts to attract them as would in the end enrich themselves.

Unless these things, and others perhaps besides, are done, Madeira will retain her monopoly, and only a few

invalids will resort to the Canaries—enough, perhaps, to prove how much they might benefit mankind, but far fewer than there ought to be. They will still be sought by a few tourists only; every ten years one or two learned men will spend in them twenty-four hours at least, three days at most, according to the ancient and solemn custom adopted by these learned gentlemen and prescribed by the governments who pay them. Finally some misguided author will study the Islands, make Cassandra-like predictions, and preach to the winds.

Chapter VIII.

AGRICULTURE, TRADE, AND COMMERCE.

The western islands of the Archipelago are deficient in plains favourable to cultivation; the valleys and mountain ridges alone are given up to agriculture. In Teneriffe the mountain torrents flow into the sea with extraordinary rapidity; there are not many in those parts of the island where rain is scarce, and most unfortunately the inhabitants, as we shall see, pay but little attention to collecting the water in canals, which is only done at Orotava. Thus the soil is dry and arid in that part called the southern belt, of which Santa Cruz is the active centre. Commerce, a little trade, and navigation chiefly occupy its inhabitants; and, for want of irrigation, agriculture is in a deplorable state of neglect, except perhaps in the immediate environs of the town.

Towards the southern extremity the water is utilised by means of a good deal of hard work in the valley of Adeje, but between it and Santa Cruz you will find no trace of a canal, and even at Santa Cruz the water-works are intended exclusively not for cultivation, but for the wants of the town.

It is said that 'the southern slopes of the Sierra do not give such an abundant supply of water as the northern

slopes, and it is on that account that expensive works are not undertaken; the quantity of water supplied by them would not be sufficient to repay the expense.'

This assertion is true in the present state of things; but if the southern slopes were wooded, the quantity of water they would furnish would increase until it was more than sufficient for agricultural requirements. In order to plant them money and water are needed. We are apparently travelling in a vicious circle; but suppose that some society similar to those which abound in Orotava were formed, and were to utilise the water in one spot, the most favourable, then that spot might be planted to good purpose. The water could be carried along the slopes, and the vegetation would soon be vigorous. In the higher parts pine forests might be planted without any water at all; wherever there is any earth, however little, pines will come of themselves. This first beginning being made, others will soon follow the example set, for the results will be visible in two or three years, and remunerative in a few more.

This is no utopian idea. It has already been carried out in some parts of Madeira, and the pines planted on the arid mountain ridges, at a height of from 2,000 to 5,000 feet, have succeeded admirably. This method has been practised for the last ten or fifteen years, and the amount of water is double and triple what it used to be in the subjacent valleys. It has been also collected at no great cost in open channels of stone-work. In Madeira, too, the difficulties were greater; whilst the south-eastern belt of Teneriffe has a gentle

slope, the inclines in Madeira were so steep that it was often impossible to retain the water. Mountains in Madeira 6,000 feet high are only two or three miles from the sea at their base, while the southern belt in Teneriffe averages a distance of from four to six miles from the sea at its base. In Madeira it is impossible to make reservoirs; in Teneriffe it is easy. In Madeira lime is wanting, and must be brought from Porto Santo; in Teneriffe it is cheap.

It is for the sake of the improvement of the land, and also of the inhabitants of the southern belt, who are the poorest in the island, and for the sake of increasing the population in this thinly-inhabited locality, that we are anxious to see hydraulic works and plantations begun. On the lower declivities the vine, which needs very little water, would succeed well; the people of Madeira are re-planting it as fast as they can; why should not the people of Teneriffe do the same in all those parts of the southern belt where they cannot cultivate cochineal? It would be so much clear profit.

The conquerors divided the springs among the captains who had received lands in the valley of Orotava, and thus created a monopoly. The name of *dula* was given to the water company formed by the concessionaires. For want of a satisfactory etymology I offer one for what it is worth. At that time large associations had already been made in Spain for the breeding of sheep. These sheep belonged to the municipalities or to a great number of persons, and a few shepherds took care of the *mesta* for the municipality. This flock was called *dula*,

and each of the proprietors a *dulante.* The water companies in Teneriffe took from this the name of *dula*, and each member was called a *dulante.*

At first the water was given out four times a year; but at that time the vine was generally cultivated, and it is well known that it can dispense with water better than any other plant. A few years ago, when the vine disease appeared, the vines were pulled up; other things were cultivated instead, and water became necessary. It was given out every month. The water was more carefully husbanded, new companies were formed, and when the law was published abolishing mortmain and primogeniture, still more subdivisions were made. The old watercourses were repaired, and new companies have made fresh canals and reservoirs. At the present time the valley of Orotava is watered daily by about 12,000 pipes, and this number will probably increase.

The 'Impresa,' founded in 1848 by fifty-four *dulantes*, now yields 4,500 pipes a day in summer. A still more recent company, 'Los Principes,' established in 1867, will in 1869 give 5,500 pipes a day; its aqueducts were so badly made that it has been found necessary to make new ones. The 'Palo Blanco' will yield 2,000 pipes. There are other companies besides these.

A very copious spring has just been turned to account which unfortunately has its source too low down, and only waters 200 *fanegas* of land—about eleven square acres. Another company has just built an immense reservoir at Orotava, and supplies its members with the water stored up in the winter. Nor is this all. There are more than

fifty other smaller reservoirs, belonging to private individuals. These reservoirs are usually circular, made of granitic basalt, covered over with cement. Those belonging to private persons serve to irrigate their estates, and nearly all water a kitchen-garden as well, so that fresh vegetables are to be had all the year round.

Gran Canaria is better supplied with water than Teneriffe, and the land, chiefly owing to this fact, is more extensively and more highly cultivated.

In Palma irrigation is not conducted on a large scale, as it might be with advantage.

In Hierro and Gomera a very small portion only of the land is cultivated; and yet in Hierro, whatever the style of farming may be, the products are more considerable than in the other western islands—in proportion, that is, to the small number of inhabitants and the small amount of land under cultivation.

Just as there used to be in Madeira 'lords of the vineyard,' so at Orotava there were 'lords of the *dula*.' It is as well to preserve these names, for they are no longer in use. Wine and water, the two opposites, have each in turn made the fortunes of the two islands.

In Teneriffe, Canaria, Palma, and Hierro the nature of the soil is very nearly the same; the proportions alone vary. I give its composition. With the exception of certain localities where the soil is nothing but pulverised pumice-stone, abounding in flint, all the rest of the cultivable soil in the above-mentioned islands consists of an amalgam of scoriæ, sand, and basaltic lava, in which the argillaceous element predominates.

This soil was formerly especially favourable to the cultivation of the vine, but after three centuries the disease appeared, first rotting the fruit, then destroying the plants, until the owners of the vineyards were obliged to root up what remained.

In the island of Gomera there is more clay, and the vine never succeeded so well there as in the other islands.

In Lanzarote all the soil produced by recent eruptions, especially those of the last century, is useless for cultivation. A certain amount of land is of the same nature as that of the before-mentioned islands; another portion, not so large, is composed of calcareous sand.

The Isleta, in Gran Canaria, shows evident tokens of an exactly similar composition.

In Fuerteventura the soil is almost entirely sand, clay, and basaltic lava; on the coasts, and sometimes in other parts, gypsum is found. This absorbs moisture, and owing to this less irrigation is necessary than in Canaria.

The country was formerly devastated by two scourges—ecclesiastical property and primogeniture. Recent laws have completely changed the state of affairs. During three hundred and fifty years the former laws had produced misery and expatriation, idleness, disease, and superstition. Twenty years of the new system, only partially carried out, have enriched the Islands and almost put a stop to expatriation.

The amount of Church land was so enormous that it comprehended more than a third of the entire territory; a whole valley, of more than 150 square acres, called Las Vegas, belonged to the Augustines of Realejo. Many

persons practised on a large scale, to the detriment of their families, a most lamentable system of endowment; after giving their money and valuables, and being unable to give away their estates, they charged them with annuities to some monastery or church. Nor was this all. There was a curious institution in those days called *capellanias*; these were rents on estates, which were to pay for masses being said. There were so many that it was impossible to say them all. Then priests were appointed, called chaplains, to say as many as would satisfy the conditions of the legacy. We must not forget that similar proceedings were practised in France in the last century, as is proved by an anecdote of the Abbé Raynal. Being young and poor, he undertook a mass for which the pay was ten pence a day. When he became richer he handed it over to the Abbé de la Porte, keeping five pence for himself; after a time the Abbé de la Porte, finding himself in less needy circumstances, handed over the mass in his turn to the Abbé Dénouart, keeping two pence half-penny for himself; so that the mass, twice underlet, only brought two pence half-penny to the man who said it—or did not say it.

All the land which did not belong to the Church belonged to the nobility and was entailed. Every family, for the sake of preserving its name and wealth, made it a point of honour to tie up the patrimonial estates in the hands of the eldest son. For the others there remained beggary, the cloister, the army, or America.

There is no need to explain why the lands thus entailed did not yield the tenth part of what they ought to have

done. The same results were seen in Europe. National prosperity dates precisely from the period of the sale of those lands formerly monopolised by the nobility and municipalities. The new law with regard to primogeniture, passed in 1834, and the law of *desamortizacion* of Church property, passed in 1854, have enriched the Islands. At first the owners of entailed property were allowed to dispose of half of it; the other half fell to the share of the eldest son, it being thought unjust suddenly to despoil him utterly, but his heirs were to share the property equally. So that in this present generation the land will become perfectly free.

As for the ecclesiastical estates, they were sold at once for the nation, which established instead a budget for public worship. With regard to lands on which there were clerical mortgages, the owners were permitted to buy back the rents in perpetuity with which they were charged by a certain sum paid down; or they might pay it off in six years, but in that case the indemnity was doubled. This plan enabled all landowners whose property was encumbered to pay off in a short time, and at no great expense, the mortgages which made it difficult to sell land, and, above all, to cultivate it properly. The mortgages have disappeared as if by magic, and there are now scarcely any encumbered estates in the Canary Islands.

With regard to the *capellanias*, it was decided that the lands on which they were charged should become free on the death of the incumbent. These laws have transformed the country. Property is parcelled out and cultivated,

and although there is great room for improvement, yet the happy results are already most striking, and are so apparent to the natives that progress takes place daily. Only let the Canarians persevere, and as bodies in obedience to the laws of gravitation fall with accelerated velocity, so let them accelerate their efforts in proportion as they advance; they will soon obliterate all traces of the past.

We shall now give a general description of the modes of culture of the various products cultivated in the Islands.

Amongst the immense variety of products we find cochineal, potatoes, onions, cereals (wheat, barley, rye, and oats), vegetables of every kind, almonds, peaches, oranges, lemons, bananas, walnuts, chestnuts, olives, Japanese medlars, palms, chickpease or *garbanzos*—of which incredible quantities are consumed—flax, saffron, honey, wax, numberless medicinal plants, mulberries, &c. &c. As we said before, silk was formerly cultivated on a large scale as an article of commerce, and there were manufactories of it. Now, only a few fancy articles are made of it by ladies for their own amusement. To these products we must add tobacco, which will be the grand resource of the future, if cochineal should come to be less productive than at present. It succeeds admirably, and resembles Havana tobacco. The sugar-cane has been given up entirely. The Islanders leave its cultivation to Havana, with which, since free trade has been declared, they cannot compete. Coffee has succeeded perfectly, and may also serve as a resource some future day. Tea

will grow well, but the Islanders do not know how to prepare the leaves.

Cereals are cultivated with the most complete success, but unfortunately the extent of land suitable for them is ten times greater than that now under cultivation, and, in spite of their enormous yields—twenty and fifty fold—the actual product is insufficient for the local consumption; the cheapness of foreign grain, now that the port is free, is an obstacle to the proper development of this branch of agriculture.

The few vines which still remain do not yield nearly enough wine to supply the Islands; most of that consumed there comes from Catalonia. A white wine, however, is made there, very cheap to what it used to be; when old it is excellent. There is now only one foreign house, an English one, which carries on a wholesale trade in Teneriffe wines. A native house of less importance is also engaged in this now almost extinct trade. Xerez, Malaga, Porto, Setubal, Marsala, &c., now supply the place of Madeira and Teneriffe. If those parts of the Islands where cereals and cochineal cannot be cultivated were replanted with vines, they would yield large revenues.

Early potatoes are cultivated very successfully, and there is an extensive trade in them. The English flukes and kidneys are generally preferred. Vessels bring the seed from the Channel Islands or the south coast of England to Puerto and Gran Canaria; in the spring they take the potatoes to Cuba and the West Indies. More than three thousand tons are exported from Puerto alone.

These early potatoes fetch a high price, and are thought a great deal of throughout the West Indies.

The same cultivation of early vegetables goes on in the Channel Islands, more than fifteen hundred miles to the north, and on a scale ten times larger.

Onions are also sent in immense quantities to America. They resemble those of Egypt rather than the Portugal onions.

The orange-trees have been attacked by disease, and here, as in Madeira, the greater part have been destroyed; some, however, are still to be found at Orotava.

The banana produces delicious fruit. Unfortunately, like most other fruits, it is not sufficiently cultivated; and yet in ten days, or eleven at the most, it could be sent to the London, Brussels, and Paris markets; it could be sent to Madrid in a week.

Wherever the land is the least moist, or even only cool, maize is cultivated; it yields large crops. The finest cereals are to be found mostly at Laguna, which is the most cultivated, elevated, airy, cool part of the Islands. Cultivation has been carried in certain parts even as far as the pines, whose sombre verdure contrasts admirably with the tender green of the cereals or the splendid golden crops at harvest time. At Orotava, that wonderful garden where everything grows at a wish, the cultivation of potatoes begins at the town, just where the cochineal ends; the cereals come next or beside them; higher up are chestnuts and pines; the bare rock above prevents any more cultivation.

The palm is carefully cultivated. This picturesque

and graceful tree is very remunerative. The leaves are made into baskets, matting, and brooms. The wood is made into fans.

Cochineal is cultivated on a plant possessing a variety of names—*cactus*, *nopal*, *agave*—in the Guanche language *tunera*, the leaf *tenca*, the fruit *higo tuno*. The fruit is very good, and forms an important article of food in the Islands. It is on the leaves of this plant that the cochineal is fed. This insect was brought from Mexico about the year 1823 by a retired intendant, who undertook the first experiments at his own expense. The undertaking was carried on and promoted by the Government, but it was not really until after the destruction of the vineyards that the cultivation of cochineal became a source of wealth to some, of prosperity to the greater number, and a real benefit to all.

Cochineal, properly speaking, is an insect of the genus *coccus*, from the Greek word *κόκκινος*, scarlet. The scientific name of this hemopterous insect is *coccus cacti*, so called from its attaching itself to the cactus, the fibres of which afford it food, by means of a sucker. The body is thick and soft, without wings; it has nine antennæ and but one joint to the tarsi. The female remains fixed to the cactus and lives there; her skin secretes a soft kind of envelope, in which she deposits her eggs, after which she dies, and nothing remains of her but a hardened membrane which protects the eggs. The male alone is able to move. This insect came originally from Mexico.

In order to produce cochineal it is necessary to prepare the land, and to plant rows of young nopals at a distance

of about two yards apart, in parallel lines. When the nopals are sufficiently large the insects are placed on them; the eggs are then laid and hatched. They are very numerous, and only a small number of female insects is required—four or five on each leaf. When they have undergone their various transformations, they are scraped off the leaves with a knife; they are killed by being plunged into boiling water, and then dried in the sun or in an oven. They then look like a small black or reddish-brown grain of maize. The colouring principle is called carmine. There are other kinds of cochineals, of which, however, we need not speak here. Cochineal is used to dye silk and wool. A splendid scarlet dye is also obtained from it, but this latter is not a fast colour; water spots it, and alkalies turn it purple. Cochineal is also used in making red ink and paints, to colour liqueurs, opiates, tooth powder, &c.

The female insects cannot be cultivated everywhere. In Teneriffe they are cultivated in the northern belt, which is dry, and the eggs after hatching in the southern belt. There are large cochineal establishments at Orotava and in Gran Canaria.

In order that the insects, after they are hatched, may be securely fixed to the leaves, the nopal is usually covered with strips of linen, either put all over the tree, or else cut in pieces and fastened to each separate leaf. If you look down from a height into the valleys at certain times of the year, you will be struck by the curious effect of these immense pieces of white calico which cover the fields. You would take it for snow if it did not stop so

abruptly at the end of each nopal plantation. The insects are three months in reaching their full development. The nopals are not fit to receive them before they are two years old. A considerable capital is needed for the undertaking, which yields from thirty to forty per cent. net.

Cochineal gives employment to the women of the country nearly all the year round. This is one of the chief causes of the prosperity of the Islands, where formerly the women were without occupation, while now they earn good wages. The men are employed in preparing the ground, planting the nopals, and in all the other branches of agriculture.

With the exception of Lanzarote and Fuerteventura, cochineal is cultivated everywhere throughout the Islands.

For the sake of the Canary Islands it is to be hoped that the marvellous colours which chemistry extracts from coal, before coming into exclusive use, will allow the Islanders a dozen years of profitable results. By that time the habit of industry will have taken firm root. The land will be under cultivation, and the change of employment will easily be made. Far-seeing people are already preparing for it.

The preparation of the land for the nopal plantations is no slight task. 'Be sure that you describe in your book,' said the Marquis de la Florida, 'what I have shown you on my estate. Everyone else has done the same. They ought to know in Europe that we are not incorrigibly idle, men of no determination, Spaniards only fit to smoke, dance, and sleep.'

I will describe the undertaking to my readers.

Given two acres of land, composed of flint, basalt, triturated pumice-stone, and a little clay on a substratum of basaltic rock or tufa, a third of the surface sometimes consisting of the bare rock; the question is how to convert this space, where soil is so scanty and rock so abundant, into a field of arable soil two or three feet deep. First of all a ditch is dug, two yards long and a yard deep. The earth is put in a heap on one side, the tufa and blocks of granite and basalt are made into a wall outside the ditch, and in a parallel line with it, so as to bound the field on that side. This done, another ditch is dug beside the first. The earth is carried to the heap and the pieces of rock laid on the wall, and so on, ditch by ditch, until the whole field is completed. Before half the task is over, the field is surrounded by a wall six feet thick and about six feet high; an equal amount of rock remains, which is used to build a pyramid or an immense cube surrounded by smaller ones in the worst part of the field. Some of these are sixteen feet high, and their sides measure nineteen or twenty feet, the stones being carried on the head, one by one. This is called making a *mollera* (a summit of elevation). How much time, money, and labour all this must take! Noble or peasant, everyone does the same, and it is at such a cost that the nopal plantations are made.

One of the necessary results of the cultivation of cochineal is the stop put to the *métayer* system—that is, farming on the condition of half profits. Formerly all the great landowners let their land on condition of sharing

the profits. But as soon as the land became valuable from the cultivation of cochineal, the landowners bought back their estates from the farmers; the latter bought land with the money, or else while they derived from it a certain amount of income, they hired themselves to work on the same lands. Now, many of the sons of men of good family superintend the cultivation themselves, and the farmers who still remain are disappearing day by day; not half of them are left. Some people are alarmed at this; but let them alone; it is the best thing for them. They will find other things to do which will pay them better. Farming on the condition of half profits is confessedly inimical to agricultural progress, and leaves the farmer as badly off as the landowner.

The supply of cereals being insufficient, a trade in maize, sometimes considerable, is carried on with the coast of Morocco. Vessels from the Levant also bring corn; the mother country or America supply the rest, according to the state of the markets and other considerations.

Carbonate of soda is made from the barilla, a plant which grows wild in Lanzarote and Fuerteventura, and is now cultivated there. These two islands trade largely in the product of this plant, of which they enjoy the monopoly. Having no cochineal, they grow barilla. This product is so important that we think a few details may be useful.

Mesembryanthemum crystallinum, such is the barbarous name of the barilla according to scientific classification. This plant, or rather herb, in Latin *soda*, *salsola*,

is of the important family of *chenopodiaceæ*; those particular members of it which produce alkali are called *salsola*. They are found only on the sea-shore or in soil exposed to marine influences; their stems are extremely flexible, and when they grow by the sea they yield to the force of the waves and do not break. The leaves lie close round the stalk. These plants flourish in the poor, dry soil of Fuerteventura. They take root in the light soil, and if left alone will make the most friable soil compact. The leaves of certain species are good for food. The soil of Fuerteventura being strongly impregnated with marine salts, the plant flourishes there to perfection, and constitutes a most precious gift natural to the island.

Generally speaking the salsola requires rain. To compensate for the want of rain in Fuerteventura and Lanzarote, a phenomenon takes place there which has been noticed also in Morocco, and even close to Sahara, on the shores of the Natron lakes. The night dews settle on the leaves, which, being salt, do not immediately absorb the moisture; the salt is therefore enabled to retain a portion of the water and to convert the surplus into mother-water, which crystallises on the leaf. This explains the fact that in Lanzarote, for instance, amidst beds of scoriæ and lava, on the dry sea-sand and on volcanic ashes, the salsola grows on soil scorched by the sun and scarcely ever moistened by rain. Lanzarote produces an immense quantity of barilla.

The barilla of commerce is obtained by burning the plant, the ashes of which form the substance so universally employed in making soap, glass, ley, woollen fabrics, &c.

The Spanish barilla, from Alicante, Malaga, and the Islands, is the best in the world; England uses great quantities of it, and her ships bring from Arecife nearly all the barilla to be had in the Canary Islands.*

All the European, African, and American fruits and vegetables which have been introduced into the Islands yield enormous crops, if a little care be taken to remove any accidental causes which might injure them; those which are indigenous require no grafting or cultivation of any kind.

European cereals, little or badly cultivated on account of their comparative unproductiveness, might, however, in some parts give more satisfactory results. We think, as do others who have communicated with us on the subject, that this branch of agriculture will soon be greatly developed in proportion as cochineal becomes daily less and less remunerative.

The vine could be cultivated in the high lands, and if attempts were made to do this in Canaria and Teneriffe they would probably be crowned with success, as is the case in Palma. In this manner land now almost unproductive could be brought into cultivation.

In those parts which are well watered the vegetation is remarkable, not equal to that of certain parts of Brazil, but superior to that of Europe. Canarian vegetation is, as it were, the happy medium between that of the temperate zones and that of the tropical zones; the trees

* Little or no barilla is now imported into Great Britain, carbonate of soda being now produced from common salt by means of sulphuric acid. (*Translator's note.*)

especially follow the law of moderate vegetation, except at Orotava. There is an extraordinary tree in the gardens of the Marquis de Candia. It is a chestnut-tree, eighteen feet in circumference close to the ground; from its very low trunk, only ten feet high, are sent out two branches in an almost horizontal direction seven or eight feet in circumference. What I am about to relate happened two or three centuries ago. At the top of the trunk was a cavity, into which rain and dust must have penetrated; a chestnut from one of the branches must have dropped into it, and a second tree sprang up just on the top of the trunk between the two branches. The roots, nourished at first by the rain and dust, have penetrated the old trunk. This second tree is ten feet in circumference; the trunk is short, bifurcates like the first, and the same phenomenon having again happened, a third chestnut-tree has grown out of the second. Not being able to climb so high, we could not see the roots. The tree is magnificent; its shape is that of a wide Y, and it is in the cavity of the V that the second chestnut has grown, also in the form of a Y, the third chestnut springing from the cavity of the second V. The mother tree has sustained no damage. These three trunks one above the other, with their branches stretching out in pairs, remind one of those human pyramids we see in circuses—three men, one above the other, with their arms extended.

It is said at Orotava, and the magistrate Secall affirmed in his book, that the phenomenon is repeated five times. We proved this assertion to be erroneous: there are only two superposed trees resting on a third.

It is also asserted, and Secall also affirmed, that the roots of the upper tree, the fifth, go through the trunk of the fourth, the roots of the fourth through the trunk of the third, and so on; and that the trunk of the original tree is nothing but a hollow case, through which all these roots reach the earth. Such an assertion is directly opposed to all natural laws. The roots only penetrate two inches into the tree, only piercing the bark, and not the wood at all; the trees live on the sap derived from the roots of the original tree. If the trunk of the lowest tree should fall or be cut down, no trace of the roots of the upper trees would be found in it. All this conglomeration of vegetation lives by means of the roots of the chestnut-tree. It is a case of grafting; the upper trees are grafted on the lower one.

Directly we admit the possibility of the germination or development of the germ contained in the chestnut fallen among the dust and sand collected in the cavity of the trunk, the whole thing is easily explained, although the phenomenon is unusual. Whether it were an experiment, a trick, or an accident, the chestnut germinated, because the contact with the *liber* of the young plant necessarily made it grow; because the two plants were not only of the same family, which would have been sufficient, but of the same species, and because there could have been no contact with the outer air, or germination could not have taken place, three essential conditions to grafting. Now in grafting the stock always nourishes the germ grafted on it. This fact is beyond dispute; it is well known in all orchards.

Let us draw the attention of all amateur horticultural tourists to the gardens of the Casa de Franchi, now belonging to the Marquis de Saussal, which are very beautiful and well kept, watered by running streams, adorned with the finest trees from America and Australia, and containing nearly the whole insular flora. The orange-trees in the *patio* are magnificent, and the view from the terrace is most lovely.

The gardens of the Marquis de Candia are not so well kept; with a little more attention they would be magnificent, for they are very extensive, command the finest view in Orotava, and are beautifully planted.

The Monteverde family possess fine gardens and a splendid collection of heaths.

The finest flowers, perhaps, are in the garden of a young man named De Viña y Lugo; he is very intelligent, and cultivates rare species with great care.

Casa Machado possesses a magnolia of extraordinary size, and, not much to the honour of the Garden of Acclimatisation, it is a cutting from the one there, the oldest of all in the Islands, but very inferior to its descendant. The large tree-camellias here are also remarkable from the size of their stems and branches. These remarks are sufficient to prove the fertility of this privileged locality, which the sun warms even in winter, and where springs of water abound. It is indeed a terrestrial Paradise, where flowers and fruit abound, the true Garden of the Hesperides, still guarded by the immense dragon-tree. The trunk of this enormous tree still remains; its branches lie at its feet. Let those make haste

who are anxious to see this ancestor of vegetation anterior to man; let them make haste if they wish to see the discrowned guardian of the golden apples of the Garden of the Hesperides.

It is astonishing that the natives of the Canaries do not, like those of Madeira and Porto Santo, breed cattle for killing. Oxen and cows would soon yield an important revenue to the Islands, for the extent of pasture-land accessible all the year round is considerable, and would amply suffice to support all the cattle wanted. It is true that very little meat is eaten in the Islands, but that is on account of its high price. Against the breeding of horses it is urged that the Islands already contain as many as are necessary; this may be true in the present state of things, but when the Islands are covered with roads double and treble the actual number of horses will be required. In our opinion the Arab and Andalusian horses might very well be introduced, and would answer as well as they do in the Peninsula.

Latterly every writer, every journalist, and every landowner on the side of progress cries out for the establishment of model farms. As a general rule we think model farms are not sufficiently productive in proportion to the outlay. We even think that, with a few rare exceptions, they do more harm than good.

The instruction given in model farms is of two kinds. It includes, first, such preliminary general knowledge as is useful to everyone and is necessary in every line of life, agriculture among the rest. The upper and middle classes are taught as follows: A little history, geography,

arithmetic, geometry, book-keeping, natural history, chemistry, a smattering of law, &c. So much for the intellectual part. Then comes the practical part—sanitary laws, the veterinary art, horse-shoeing, making waggons, fencing, &c.; finally, the cultivation of the fields, the management of cattle, a dairy, wool, &c.

Who are to frequent these schools? labourers? The first part of the instruction would be unsuitable for them in the present state of public education and general knowledge in the Islands. The middle classes? The manual labour of the second part would be unsuitable for them.

Should the pupils pay? Should a certificate be given when the studies are over? How long should they last? How old should the pupils be? How much liberty should they have? All these are difficult questions. If the pupils are too young, they will be able to study, but not to work. If they are past twenty, it will be just the reverse. The farming schools which have been tried have not afforded satisfactory results.

It is said also that agricultural professorships ought to be founded at Orotava, Laguna, Las Palmas, and Santa Cruz. They would be very profitable to the professors, who would thus gain sinecures but no pupils; they would talk to the winds. The labourers work all day and then go to bed, and would not attend the lectures even if they could understand them. Send them first to the primary schools.

Farmers are not to be made in this way. Professors are of no use; work and education are necessary in the first place. Farming should be looked on as a branch of

trade or commerce, and the farmer as an important and honoured member of the State, equal to the lawyer, the banker, or the shipowner. Then the labourer will become intelligent, and the land inexhaustible; then the farmer will make roads and ponds, and establish schools in his village. These are no Utopian ideas; this state of things exists in Holland, Belgium, Great Britain, the United States, Australia, and wherever the Anglo-Keltic Saxon race is found, and is desirous of leading an honest life by means of labour and liberty. In these countries, agriculture is studied and thought a great deal of, and every one knows that in England, the land of aristocracy and privilege, a nobility has been created for farmers; the gentleman farmer is the equal, if not the superior, of the banker and the merchant. Social customs ought to be changed: the useful man ought to take precedence of the useless one, the worker of the noble idler; the farmer ought to be the first citizen of the State, the equal of those most distinguished by wealth, talent, or office.

There are very few manufactures carried on in the Islands. Formerly, when the sugar-cane was cultivated, there were manufactories for the construction of sugar-mills; wood and wrought iron were the only materials employed. When the vine flourished, wine-presses were made instead of sugar-mills. Some of these presses, which were in the open air, in comparatively elevated situations, still exist; the greater number have disappeared, leaving, however, traces behind them in the shape of immense horizontal beams, raised a few yards above the ground. After passing Tacoronte, on the road from

Laguna to Orotava, and gaining the site of the ancient vineyards, we see here and there, near some isolated farm, these great beams, which have a most extraordinary effect, for one cannot understand their use or object. Near the Realejos and Guarachico, they occur more frequently, and remind one of the immense crane which for so many years has disfigured the Cathedral of Cologne.

There are not many windmills in the Islands: Santa Cruz possesses a few. The valley of Orotava utilises its waters by means of the most simple, elementary water-works; a dozen small water-wheels with two mill-stones each; they are arranged with some skill.

The printing-press is held in great respect in Santa Cruz de Teneriffe. Vidal's press publishes newspapers and books. Vidal is also the editor of several works, among which is the 'Biblioteca Isleña' [Insular Library], which consists of writings on the Canaries, and the works of native authors. He also publishes translations of a medley of oddly chosen French works, of the best and worst kinds. He has also a good circulating library.

The manufacture of carved wood furniture, picture frames, cornices, mouldings, galleries, balconies, chapels, marriage coffers, &c., is still carried on in Santa Cruz; but the competition introduced by the importation of similar European products, since Santa Cruz was made a free port, has given a terrible blow to this branch of trade. Henceforth the only articles produced in carved wood will be those which cannot be procured from abroad. This trade, to which the necessity of being self-supporting

gave birth, is about to perish before the pitiless law of competition.

The trade in freestone, a very hard kind of basaltic granite, has assumed very considerable proportions, in consequence of the improvements made in Havana, which, being a Spanish colony, procures stone from Teneriffe. The quarrying of this stone employs a good many workmen, and to these we must add the whole body of stonecutters.

One small branch of trade is gradually dying out, that of making jewellery for the peasant women, who are a prey to the gold disease. These ladies will only wear Spanish or French jewellery, which, as well as watches, is imported to a large amount.

There is really little or no trade in the Islands: America, England, France, and Spain, supply them with everything. Machinery and timber come from the United States. Spain sends oil, wine, earthenware, and olives, and the best products of Catalonia. France sends ribbons, toys, silks, dresses, and perfumery. From England come cotton goods, cutlery, cast iron, steel, coal, hardware, agricultural implements,—three-fourths, at least, of the goods imported into the Islands.

In the face of the immense development of the cultivation of cochineal, and of the considerable increase of the national wealth which has been its result, it would be in bad taste, and perhaps unjust, to urge the Islanders to accelerate the necessarily slow course of agricultural progress; we would rather see in what they have done during the last twenty years satisfactory reasons for ex-

pecting continued progress: we would, however, once more recommend them to plant trees on the heights, which will produce water in abundance; to cultivate vines in the poor soils, and cereals in those localities where cochineal will not succeed; finally, to do everything in their power for the more complete irrigation of the Islands.

Those laws, customs, and social distinctions which formerly so greatly hindered agricultural progress by keeping the land in the hands of religious bodies and the nobility, having disappeared, the land is free—the labourer is free; and by work the peasant can become a proprietor, as is fair and right.

The literary man, whether noble or not, will always find in the exercise of his intellectual faculties a sufficient source of wealth; and from these two methods of obtaining money will spring Emulation, the mother of Progress. The head and the arms constitute the whole strength of man. These two forces are constantly brought into play, and developed, and soon bring wealth when actively employed under liberal institutions. Wealth moralises: 'With three yards of fine cloth,' said Cosmo de' Medici, 'I can make a respectable man.' With two acres of land in our day we can make of a serf a free man, a citizen. Cosmo gave the cloth; the peasant earns and saves enough to buy the land, which is much better.

The commerce of the Islands is not nearly as important as it ought to be; there are several reasons for this. Limited to supplying local wants, commerce is in the hands of foreigners and of a few native houses, because

companies are not as yet in fashion, and the spirit of monopoly and exclusiveness—the inevitable result of an absolute monarchy and authoritative education—is dominant, although gradually becoming weaker. It is necessary to make an effort. Commerce can be easily developed everywhere, with the help of good-will, time, and the bringing together of capital and labour; how much more easily in the Canary Islands, so admirably situated for commercial purposes, and so rich in various products! But although commerce might be established and prosper everywhere, although Santa Cruz and Funchal are exceptionally situated for the carrying out of the most ambitious commercial plans, one obstacle presents itself—the want of a harbour. It is of no use to talk of the open roadsteads where ships find an uncertain shelter and doubtful refuge, as well as constant difficulties and expenses in embarking and disembarking. These roadsteads might be sufficient a hundred years ago, but now they are deserted. There must be a harbour at Santa Cruz, a sheltered one; without it, commerce is impossible. Santa Cruz and Funchal are the only victualling places on the African coast; between Europe and the Cape of Good Hope or Straits of Magellan, as well as between Europe and South America, China, and Australia. In all the Atlantic ocean there are only these two spots where, if they possessed sheltered harbours, the fleets of the whole world would find health for their crews; lemons and vegetables after a long voyage; agricultural products, sheep, poultry, and oxen, at prices remunerative to the Islanders, and very cheap to the buyers. To have worked

for three hundred years at a jetty fifteen hundred feet long, is worse than waste of money, worse than neglect; it is folly. To wait quietly for the State, preyed on as it is by the army, the clergy, the various officials, the public debt, and the follies of the court, to come and build a harbour at Santa Cruz is too foolish. The harbour, like the gardens of Acclimatization, must be made by the Islanders themselves.

Let a company be formed with a capital of 200,000*l.*, and in five years a magnificent harbour will be ready for the commerce and fleets of all nations. And it will pay well, too, which will be no drawback. A small tonnage due will reimburse the outlay in twenty years, the harbour remaining free.

An Utopian idea? No, a proved fact. The 59,000 inhabitants of Jersey made a harbour costing 200,000*l.* at their own expense; it repaid the money in ten years. In Guernsey, which has only 30,000 inhabitants, an equally magnificent harbour has been built in five years, which will repay the expense in ten years.

Let the Canary Islanders reflect that ships may perhaps come to forget the way to the Islands, being no longer attracted, as they were formerly, by their choice wines; let them reflect that France, during her unfortunate Mexican expedition, was obliged to divide her fleet between the Azores, Madeira, and the Canaries; if Santa Cruz had had a harbour, a hundred thousand men, and more than a hundred men of war, would have anchored off her quays. If Santa Cruz possessed a harbour, all the steam navigation which plies from Spain to Porto

Rico, Havana, and Mexico, would touch there, as well as all the French and English steamers; it would be used as a naval station by all the great maritime powers. Agriculture and commerce would find in the establishment of a harbour, the one a favourable outlet, the other a source of profit, and the necessary conditions of rapid development.

How many times have we heard it said at Santa Cruz that a harbour there is impossible! It is an erroneous assertion, for the construction of a harbour is not only possible, but easy; the tides are not very high, materials are abundant and of the best kind, the soil is excellent, the shape of the bay is favourable, and the price of labour very low. To say that a harbour is impracticable under such circumstances, is to make wilfully false excuses for indifference and disinclination.

If we were asked to sum up the condition of agriculture, commerce, and manufactures in the Canary Islands, we should say that there are hardly any manufactures there, and that there is no chance of their development, but that the country seems to us destined to be almost exclusively occupied in commerce and agriculture.

Chapter IX.

ART, MUSIC, LITERATURE, AND LANGUAGE.

Our readers may have remarked, in our descriptions of Canarian public buildings, the praises we have bestowed on the carvings in wood, and on the Canarian workmen who executed them; we must now describe some of them, and say of the *sillerias* [stalls] and other ornamental work in the churches, that the good taste which eminently characterises them approximates them much rather to the work of Bartolomé Morel, the celebrated maker of the far-famed reading-desk at Seville, than to the Spanish school of Churriguerra, who has held such despotic sway over architecture and ornamental carving. It is difficult to classify the Canarian wood-carving, for there is something in it entirely peculiar to the Islands. As the authors of these beautiful works are unknown, it is possible that the monks and priests furnished the designs, and perhaps brought over artists from the Continent: in that case, however, we must acknowledge that the work is original, and neither copied nor imitated from the carvings in the mother country. Whatever may have been the case with regard to foreign workmen, we shall certainly find the impress of native hands on the chests,

furniture, and coffers, which abound in the Islands, and about which there is a look, a something, quite *sui generis*, which shows them to be really national works. The same remark may be made with regard to the principal balconies of the great houses.

The Suarez Garcia palace is ornamented along its whole façade by a most elegant balcony, wonderfully light, and most beautifully carved; the design is good, and the details exquisite. Sunshine and damp alternately have destroyed the hand-rail, which has been replaced, with unpardonable barbarism, by one made of iron, more durable certainly, but terribly inappropriate. This blunder has been crowned by painting the panels in rosettes, in the most vivid colours, green, yellow, and blue. Painting on wood has an extremely good effect, when it harmonises with the sober, sombre beauty of the material: gilding ought to be the only relief to the sober colours, as we see it in Italian work. Bright green and yellow have a most disagreeable effect, and destroy the harmony of the whole. Time, by softening down the shades, may make them harmonise a little more, but in our opinion it would be better to re-paint the whole.

The balcony of the Alfaro palace would, if it were not in a deplorable state of ruin, carry off the palm. Like the one just described, it runs along the whole façade. Less light than the Suarez Garcia balcony, it is perhaps more finely proportioned; like it, it unites great skill and great simplicity—two qualities which might be thought irreconcilable. From the street, the effect is simple and grand; examined closely, the carving is most delicate;

looked at from either point, it is a beautiful work of art, and one which ought to be restored at any cost.

The Justiniani Lascari palace is adorned by a most extraordinary balcony, for it is placed immediately over the great gates, spoiling their effect, and just under an ornamental window which disfigures the building architecturally, by being out of harmony with the façade. This carved wooden balcony, ten feet long at least, is supported by nothing, neither by brickwork nor corbels; it comes out boldly from the wall, turns its two right angles with perfect ease, and displays its ornaments with a coquetry which astonishes and charms the passer-by; one sees nothing else in the façade, and it is just as well.

They were indeed thorough artists, those unknown workmen who executed these beautiful works of art. What a splendid career might have been open to them, if they had received the necessary education! Instead of remaining at home, or going to America as journeymen to execute the beautiful carvings we see in Cuba, Bogotá, or Caracas, they might have enriched the Peninsula with a galaxy of eminent artists. But there were no schools or academies; there was nothing to be done but to remain on their rock in the Atlantic, or turn emigrants, gaining their daily bread as journeymen.

Schools of art have been founded in Teneriffe, but alas! there are no pupils. The aristocracy, by forsaking the Islands for the court, have given up their country into the hands of the middle classes, too exclusively occupied with material concerns; and the nobility who remain, troubled by the abolition of primogeniture, the

loss of old privileges, and the fear of revolution, hoards its wealth, and indulges in very little unnecessary expense. Thus, there are but few persons interested in developing the artistic movement which might so well be carried out in Canaria and Teneriffe, and the school already founded is deserted. Add to this that there is neither painter, sculptor, nor architect, who takes pupils; everything depends on personal effort, on individual talent, which is always rare when placed amid unfavourable circumstances.

But, say some, if we had a school, what would become of the pupils? They must either vegetate in the Islands, or go to Madrid; for it would be only there and in other great towns that they would find employment. Be it so; where would be the harm? The schools and academies of singing in Milan, Naples, and Toulouse, supply the world with singers, while those towns themselves do not employ the tenth, no, nor the hundredth part of those who study there. There is, we repeat, a very marked degree of artistic taste in the Canary Islands which ought to be developed; and just as in Milan, Naples, and Toulouse, good voices are cultivated, so the skilful hands in Teneriffe and Gran Canaria ought to be trained; Spain, and perhaps all Europe, would reap the benefit, for an artist has the world for his field of operations.

Schools of design appear to us indispensable; they teach the first rudiments of art, and at the same time wonderfully develope manufactures. The workman derives from them knowledge by which he will afterwards profit, unconsciously perhaps to himself, though all who

have eyes to see will perceive whence his skill is derived. It does not cost much to establish these schools; they should be open at convenient hours for the pupils, and working men should be admitted gratis.

Taste for art still manifests itself unmistakably in the Islands. Flemish tapestry, old china, antique furniture, Venetian mirrors, singularly fine armour and weapons from Spain and Italy, paintings not wanting in merit, are to be seen everywhere. We cannot enter into a description of all these treasures, but we cannot pass over in silence the two Monteverde Murillos. The house which contains them is a small palace, furnished in harmony with its style. Señorita Monteverde cultivates successfully the most beautiful heaths and some of the indigenous plants; her brother is a good amateur photographer.

M. Berthelot, the French consul, has hung in his drawing-room some fine pictures, choice engravings, and a few of the works of our modern painters. In this room is also the beautiful plan of the island in relief, made by his own hands.

At Orotava, there is a sort of collection or gallery of pictures, which was begun by a former Marquis de Castro; this collection will probably soon be dispersed. We remarked there a fine Poussin, the 'Triumph of Bacchus,' which, by its colouring, reminds one of Rubens; a Cupid by Vandyck, of the period when that painter executed pictures without much heed to his own fame, but in which, nevertheless, we still find traces of his energy and originality; 'Fortune and Prudence,' by Rubens; 'Diana

Bathing,' by Troy, an excellent work; a Guardsman, by F. Leduc, very fine; and a few small good Dutch pictures. These paintings are well preserved, and their value will be enhanced in the eyes of a good many amateurs by the fact that they are shown by a bevy of young ladies, each more charming than the other. Their fairy fingers cut out of paper most graceful and original designs, Moorish arabesques, and modern fancies; these designs are made by instinct, for not one of them could draw a profile, or any part of one. We shall not easily forget the gracefulness with which, while the eldest did the honours of the house, the younger ladies brought us, one a catalogue, another an ancient broken plate, another a carved frame, black with dust, picked out of a heap of rubbish; all the while laughing and showing the whitest teeth possible. It is of these ladies that permission is asked to visit the Rambla, the charming summer residence of which we have given a most inadequate description, which affords an object for the most lovely ride the traveller can take in the Canaries.

We have mentioned a few of the fine pictures, and of the schools of which the Islanders possess some fine specimens. It is to be wished that all these beautiful things could be placed in a national museum in a suitable building at Santa Cruz; collected together, these treasures would be more valuable, and being accessible to all, they would prove to foreigners and also to the Spaniards that of which they have no idea, the great originality of the Islanders, and the love of and taste for art which they possess; this, perhaps, would lead to the development of

these qualities by means of the help either of the mother country or of those native inhabitants who may take an interest in the subject. There are more treasures of art in the Islands than people imagine. To form a Canarian museum it only requires some one to take the lead.

We believe that the Islands have never given birth to any painter or sculptor of renown.

It was long ago remarked that the Portuguese in general had no aptitude for the arts, whilst the Spaniards, on the contrary, were highly gifted, and also, what is very curious, that although the Portuguese colonies excel the mother country in this respect, the Spanish colonies are inferior to Spain. As regards music, islands are always inferior to continents, and singing is less cultivated in them; the damp which characterises lands surrounded by water produces on the vocal organs, as it does on the strings of instruments, a sort of relaxation and loosening, which lowers the tone. This dampness enlarges the glands and ganglions, and softens the arches of the palate, and the lower part of the glottis and larynx, which contribute by their mechanism to the emission of sound. In Madeira as in Jersey, in the Azores as in Sardinia, there are hardly any or no voices. At Santa Cruz de Teneriffe, however, where the air is dry and invigorating, voices are as sonorous and true as in Spain, forming an exception to the rule. Singers are there in abundance, whose full-toned, strong voices possess in a marked degree the quality of *zinc*, that is to say, a certain vibration, almost imperceptible, which gives a kind of metallic ring to the voice. Violinists obtain the same effect on their instru-

ments by the tremulous pressure of the finger on the string touched by the bow; by this means the sound of the instrument becomes vibratory, sympathetic, almost human. In the Canarian Archipelago every one sings, the labourer in the fields, and the workman in the town, the peasant and the noble. It is a grace said to benevolent nature, as well as balm bringing oblivion of misery. Singing is a necessity, a pleasure, a remedy; happy are the nations who sing! Whilst in society the Italian cavatina bears sway, amongst the working classes, the Andalusian or Moorish songs maintain their supremacy, and these songs charm the tourist by their unusual poetry, as much as the productions of the best masters.

Guitars groan under the fierce attacks of practised hands, or squeak in unknown chords, under the pressure of inexperienced fingers; sometimes a tambourine serves as base to the guitar, and to excite the singer more intensely; he gains fresh animation, and pursues his song until, more and more carried away by the melody and the accompaniment, the crescendo bursts forth by a last effort of the singer, excited by the prolonged beating of the moistened thumb on the tightened parchment, and the sharp sound of the castanets; the listener forgets the voice, often nasal, and the somewhat guttural pronunciation; he yields to the effect of the rhythm; pierced through by the melody, he shares the emotion of the performer.

How is it that a Choral Society has not been established at Santa Cruz? Indifference, apathy, and yet what powerful elements of success! The whole of Europe can bear witness

to the good results of these musical reunions, one of the least of which is the enjoyment they give; they form a powerful bond of union among men. The common study and practice of music equalise characters, soften the manners, pacify and calm the passions: Amphion appeasing civil discord by the sound of his lyre, Orpheus taming the wild beasts, were true symbols of the might of the divine art. An Orpheon might be founded in every town; it would be a pleasant source of amusement to the inhabitants as well as of the advantages enumerated.

In the Canary Islands the public balls are most lively and animated; some of the dancers never stop until perfectly exhausted, or until the music stops, and people cease to shout at the top of their voices, *Anda! anda! alza!* ['Go on, go on! faster!']

Pianos abound in the Islands. Some critics deplore the fabulous success of this instrument, but wrongly. The piano, which is also an ornamental piece of furniture, has done more towards spreading the art of music than all the theatres and orchestras. It is suited to every one, to the beginner as well as to the composer; it can give both to the performer and the listener, by means of accompaniments and singing, an accurate idea of a musical composition; it is the best instrument of all for accompanying and helping the voice; and it is owing to the piano that the study of music and singing is double that of the instrument itself, which has greatly simplified these studies, formerly so difficult.

There are a large number of pianists in the Islands, of great merit, who can perform the most brilliant *capriccios*

as well as the most classic sonatas. This is another surface of the artistic organisation of the Islanders, and the traveller who is admitted into the principal houses will be struck at once by the taste and natural talent displayed by amateurs.

The 'Zarzuela,' the sort of comic opera, often interspersed with ballets, which has won its way throughout Spain, has done so also in the Canary Islands; the libretto which serves as its theme permits of lyric drama and ballet music being introduced. This kind of opera is treated by the Spanish composers with a *brio* and skill which is at first astonishing. This effect wears off when one is accustomed to it, but one will still be struck by the wonderful ease and elegance which distinguishes it. We have seen the 'Domino Noir' performed with Spanish music, 'Bon soir, M. Pantalon,' and many other French comic operas with Spanish music; and in spite of national partiality, we must acknowledge that in these bold attempts the imitation often surpasses the model.

Nor is this all: what will astonish the traveller much more than the excellence of the voices, much more than the superiority of the music and the dancing, will be to find good actors in the most inferior companies. It must be admitted that dramatic talent is far more innate in the Spanish race than in France. There, by dint of hard study and long practice, talents above the average may make their way; here, the greater number have had little or no opportunity of seeing other actors, and have no incitement to study, being deprived of the great stimulus, emulation: masters are scarce; and yet

all these actors sing, act, and speak in the most artistic manner. It is one of those points in which southern races excel those of the north, but not one to be over-proud of. From a social point of view, nothing is more deplorable than the stage; on every step of the ladder, the actor asserts his own talent with the most shameless effrontery, sanctioned by the crowd of worshippers who value an *ut de poitrine* as much as a noble deed, a comedian more than a philosopher. The actor speaks of his own talent as Arago or Victor Hugo would blush to do of theirs. Unbounded love of amusement, and a degradation of the aim of life which has fallen to mere egotistical materialism are the cause of this. The evil is not a new one, but it was never so serious as now in Spain and the Canaries; it recalls those days of Greek and Roman decline when the interpreters of art were more highly esteemed than art itself. Léotard with his trapeze makes his fortune in that very Spain which allowed the great Cervantes to die of hunger. We would rather see Spain excited about liberty than about actors.

Great regard is at present shown to literature in the Canary Islands, and on this head the natives have something to boast of. During our stay in the Islands, we heard the names of ten poets, and if we had been desirous of visiting all the followers of the Muse, we might have done nothing else. Everybody makes poetry—the language induces them; it is so easy, so accommodating, so flexible, that it obeys the slightest wish, helps in a wonderful manner those who know it, and consoles by its rhythm those who do not.

'Poetry flourishes in the Islands like the *tunera*' (cactus), said one of the Laguna Professors to us. 'Stunted or luxuriant, with or without fruit, from time to time it puts forth some splendid blossom, blazing in the sunshine. Look at this collection.' We found in it some pieces which were charming, striking, real pearls on the dunghill of Ennius; a carefully-chosen selection would form a very interesting volume, and would not be a bad literary speculation.

The Canarians occupy a very distinguished position in Spanish literature; we cannot prove it more clearly than by giving a kind of catalogue of Canarian authors and their works.

Pedro Quesada de Molina, born in Teneriffe, wrote the biographies of the principal Canarians, and a work on the Canonical Institutions. He was considered 'a very great man, and renowned jurisconsult.' *Sumo varon y jurisconsulto de gran nombre.* He also left behind him an unpublished history of the Catholic Kings.

Don José de Sosa compiled a gazetteer, an excellent work, which we have found useful: he was a native of Gran Canaria.

Don Miguel de Abreu Galindo, Bishop of Oajaca, wrote, amongst other works, one on the Canary Islands.

José Anchieta, the Apostle of Brazil, a celebrated Jesuit, published a number of valuable works.

Guillén del Castillo, an Admiral who conquered various lands for the Spanish Monarchy, and beat the Dutch in the Sound, wrote an account of his voyages.

Don Francisco Machado, secretary to the Viceroy of Mexico, made some excellent maps.

Nuñez de la Pena, the chronicler, wrote the history of Castile and Leon.

Don Antonio Viana, the most celebrated of all the Canarian authors, is universally known by his 'Metamorphoses,' but he deserves, like Camoens, a statue for his epic poem, the subject of which is the Conquest of the Canary Islands. Notwithstanding the faults of his age, the poem shows great poetic talent, and contains many passages of striking beauty. Unfortunately, with very few exceptions, Spaniards are ignorant of it. At Cadiz, Seville, Madrid, Barcelona, Badajos, Cordova, everywhere where we found a bookseller's shop, we asked for Viana's poem. It is out of print; there is not a copy to be had, even in the Canary Islands. It is but little known, although a new edition, long ago exhausted, was published at Santa Cruz. Viana was the friend of Lopè de Vega.

Santiago Bemorno was the brother of the too celebrated Archbishop of Heraclea, also a native of the Islands, who was Confessor to Ferdinand VII., and a member of the Council of that contemptible monarch. His brother Santiago wrote two volumes of sermons of great repute.

Don Alonso de Nava y Grimon, Marquis de Villanueva del Pardo, was a nobleman, a learned man, and the translator of several works: he founded the Gardens of Acclimatization at Orotava.

Iriarte, the celebrated writer of fables, is not thought much of in Spain, we do not know why; but he is highly

appreciated abroad, especially for his literary fables, which are masterpieces of elegance, wit, and satire.

Antonio Porlier wrote for the Academy of History several fragments of great merit, which still remain in manuscript.

Alejandro Saviñon was a Professor in the Academy of Saint Ferdinand, a first-class naturalist, well versed in all the sciences, a physician who had graduated in Paris, whose works are highly esteemed, and deservedly so.

Carballo was a Professor of Political Economy, &c.

Clavijo, the learned naturalist and celebrated Professor, had the honour of translating, annotating, and *correcting* in the most admirable manner, the works of the great Buffon, thus gaining for himself a European reputation; more than twenty editions have been exhausted.

This is a tolerably long list of remarkable men; we might mention many more; and everyone will be surprised to find among the natives of such small islands so many men distinguished in various ways—poetry, literature, and science. We might well say that the Canarians are highly gifted. It seems as if there were in this race an innate poetical feeling, for it is not study alone which has given birth to such great poetic talent, to those writers who charm and astonish us; it is not chance which has produced in these Islands containing 30,000 or 40,000 inhabitants, historians, literary admirals and noblemen, writers on physical geography, clerical jurisconsults, and first-rate poets; there must be some creative faculty there —the *Numen, Vates Meus divinior!* In support of our opinion, we may cite a remarkable fact. After the con-

quest of Spain, Rome possessed more Spanish than Roman writers; Cicero made this observation, and spoke in the highest terms of the poets of the Bætis (Guadalquivir) and the Tagus. Lucan, Silius Italicus, Martial, and Seneca were Spaniards. While the world slumbered in ignorance, Spain was singing, and the *romancero* linked the chain of the ages; while the Visigoths, Alani, Suevi, Vandals, and Moors overran Spain, the Iberian, driven back into the mountains of Asturias, still sang, and his songs produced the heroes who, sword in hand, reconquered their country, and raised it under Philip to such a pitch of greatness that it dictated to Europe and to the world.

But to return to the Islands. Newspapers abound there—a remarkable fact in a country ruled by a despotic monarchy, naturally inimical to the spread of knowledge. Here is a list of the publications, political, literary, statistical, agricultural, and educational, which are published in the Islands: eight in Teneriffe, four in Gran Canaria, and two in Palma. The eight newspapers published in Teneriffe consist of two liberal political papers, one official bulletin, one of local interest, one of public education; three times a month appears a publication in the form of a review, disseminated by the Society of Friends of the Country. This review treats of trade, commerce, navigation, statistics, agriculture, science—in short, of every possible occupation. From this list the reader may easily perceive the amount of literary energy in the Islands.

To support this literary movement, there are several printing presses, a tolerably good library, and many shops

which sell educational books and moral and religious works; while every steamer which touches at the Islands brings over the newest French and Spanish books. Under the title of 'Insular Library,' a Santa Cruz publisher, named Vidal, publishes new works, republishes those out of print, and sells every book on the subject of the Islands or written by Islanders. This patriotic undertaking does not pay badly.

We have already described the great library at Laguna, which contains fifteen thousand volumes. At Santa Cruz there is also a library, but not of such importance. The Society of Friends of the Country is diligently enlarging its own. The municipal library of Gran Canaria contains four thousand volumes. Thus there is a vigorous principle of vitality which will bring in a fine harvest when national education shall have been more fully developed, to which end every effort of the Islanders ought to be directed; it will bring liberty, prosperity, and such a general intellectual standard as will produce an appreciation of the benefits of prosperity, which charms and adorns the life of the wealthy, diverts the unhappy, and rests the busy.

The Spanish language is derived from the Latin. It has preserved none of the various indigenous forms of the language; of all the Latin tongues it is the purest, for it has taken nothing from the barbarian conquerors who overran Spain; and in spite of several centuries of foreign occupation, only a few foreign words have retained a place in the language; it is homogeneous. Much more Latin than Italian is, it does not disfigure its words either by

elisions more or less arbitrary, or by illogical constructions, and its syntax is strictly laid down; it does not easily lend itself to the caprices of fashion or the whims of authors; it still remains what the sixteenth century authors made it.

Even in the Middle Ages the language of poetry was already formed, and required only the necessary lapse of time to polish it; Spanish literature flourished from that period, and Cervantes found ready to his hand the marvellous instrument which was to create the first masterpiece of really European literature.

The most singular feature of the Spanish language is its capability of being a perfect instrument at once for prose and poetry. In this respect it surpasses all others; Greek alone can be compared to it. As if this marvellous language were destined to be perfect in every way, it is as well adapted to the portrayal of the most vigorous passions as to that of the tenderest sentiments. In prose, as in verse, the language shapes the idea, and, as it were, carves and moulds it. The great poet Villegas had already, in 1500, adapted it to every variety of Greek rhythm and metre; Ercilla, one of the *conquistadores*, about the same time, wrote his epic poem 'Araucana' in language as delicate and flexible as his own sword; Quiros, and Cervantes himself, drew poetical arabesques which throw the modern romantic school into the shade.

But let us leave these highly-educated authors, distinguished Latinists, Hebraists, and Hellenists, and let us seek the fountain-head, the unknown, popular, simple, uneducated authors, the *romanceros* (ballad singers). In

those times—more glorious, perhaps, than we think—whether war were carried on against Goth or Vandal, Saracen or King, the *romancero* sang of everything—a romance of religion or love, a rustic song, an heroic deed, a ballad, civil or political history, celebrated paladins, noble ladies, provincial rights, liberty, famous palfreys, the Cid Ruydiez de Bivar and Ximena, Ogier and Durandarte. A fine and copious stream of poetry, drawn from the very fountain-head—the heart, the head, and the arm! What sap, what vigour! History may break off, monks may impose silence, but history will live on in ballads—true national history, the progress of civilisation, exalted faith, *fueros* (charters), gallantry, chronology, sieges, dynasties, marches and provinces, bishops and clergy, civil rights and canon laws, political life,—all these the ballad treats of, and the language allows of it. Without a settled language, it would have been impossible. We may judge of the glorious artists Spain possessed in those days when she outshone all Europe by the works they have bequeathed to us.

After the resplendent talents and literary genius of the fifteenth and sixteenth centuries came, alas! the wretched, passionless classicists; conventional poetry, more varied, more regular, assimilated the literature of Spain to her Kings, swathed in etiquette, stiffened in ceremonial. It no longer attracts by its national vigour; poetical originality fades away; authors seek rather to imitate, to draw from Greek and Latin sources; impotent rules of poetic art can only supply lifeless forms, as is always the case where inspiration is wanting; art vainly seeks to support

talent. All the works of these authors of the decadence have been preserved, and are still admired. Why? The language has saved them; it has given a body to the feeble idea, like those preparations which give substance and firmness to vaporous gauze.

Essentially poetic in character, being essentially dreamy and contemplative, the Spaniard still preserves his ancient gravity, and his language is the most solemn as well as the most poetical in Europe; it sings in a serious manner the subject which inspires it, and this seriousness adds to its grace; strength, grace, and dignity, are the principal characteristics which render it a language worthy to be spoken by the gods.

In the Middle Ages—the ages of gigantic wars—hero and poet were in Spain synonymous words. Those sublime ballads, composed in the camp during a campaign, or before a battle, were composed by unknown heroes whose minds overflowed in poetry, and who found in their sonorous, rhythmical language a well-adapted frame for their thoughts. Long before those *romanceros* who were contemporary with Charlemagne, there were others whose works, alas! are lost; we shall never know, except by new discoveries not very probable, what was the language spoken in Spain about the year 500 of our era, intermediate between Latin and modern Spanish. Previous even to this transitional language, a great Iberian poem was written on the expedition of Augustus against the country of the Cantabri. It is the most precious relic of which a nation can boast, for it is the only poem written in a national idiom, anterior to the Latin language.

The literary and artistic genius of Spain was original, from its isolation. The barrier of the Pyrenees and the girdle of the sea separated the country from the rest of Europe, which, besides, followed a different course. Spain for 2,000 years lived an isolated and armed existence. No foreign moral or intellectual element penetrated there during successive occupations; Spanish literature formed itself alone. It possessed from the first a proud kind of bearing, the grandeur of which is more striking than the beauty, the severity than the elegance. As Spain was always the country of heroes, poetry there became epic even in its details; its deep blue sky, its severe, abrupt mountains, its scorching sun, have all helped to give its poetical genius that vigour of form, loftiness, and vivid colouring which characterise it. The liberty of action enjoyed by the Spanish race has given the language a freedom of form which renders thought clearly, without circumlocution; vague thought, dreamy—German if you will—could not express itself in Spanish.

The Italian language, flexible and delicate, adapted to machiavelian ideas and witty conceits, spoken by a people among whom the head rules the heart, was beaten by the Spanish language. A strange state of things took place in Italy in the seventeenth century. Although protesting all the while against Spain and her influence, the Italian poets and prose writers yielded to it, and, tired of wit, weary of poetical prowess, they formed the Hispano-Italic style, in which the gravity of the Spanish tongue predominated. It was an extraordinary mixture of subtilty and emphasis, facility and grandeur, brilliance and ob-

security. In the realm of poetry, this style, adopted by Marino, made of him a universal poet, crowned, triumphant, everywhere quoted, wealthy, and of great renown. Even in France, the *Cavalier Marin* was venerated from 1620 to 1640; he was the undisputed monarch of the Hotel Rambouillet, the father of the poets from D'Urfé down to Boufflers; Germany, England, Spain, and Italy set forth his praises, and sang his glory. In 1680 he was, very properly, forgotten. His success was due to the unnatural alliance of the Spanish poetical character with the witty conceits of Italy; we mention it to show how great was the influence of the Spanish language in Europe at that time. It was such that while Marot and Rabelais, coming from Italy, made use of that horrible Romano-Saxon jargon which was the language of the fifteenth century and was to be the language of Rousseau and of Bossuet,—Calvin, Malherbe, the Corneilles, and de Thou, borrowed from Spain and assimilated all her best features.

We have said that Spanish artistic genius was original, from its isolation: in fact, we may say without any exaggeration that, before the Renaissance, Spain had already asserted herself, not only by means of her language, but by everything else which may secure a nation's supremacy.

On this point it appears important to observe that the influence of the Renaissance in Germany, England, and especially in France, was enormous; that Poland did not escape it; but that while all the rest of Europe profited by the Renaissance, Spain alone refused to submit to its

influence, and proved to the astonished world that she could stand alone as regarded science, art, and letters. Her ballads owe nothing, any more than does 'Don Quixote,' to the Latin or Greek traditions of the Renaissance; they are purely and wholly Spanish.

What makes this aversion to everything foreign still more characteristic is, that it was displayed at the very moment when Spain was about to rule the world, and would thus be in the very position to absorb and assimilate the arts and sciences. She refused to do so; in letters, as well as in the imitative arts, music, painting, and even in sculpture, she shows no trace of the Renaissance. The Byzantine style of architecture was rejected, and the Gothic and Moorish styles were retained; painting remained Spanish (as we can easily see at the present day), and independent of the Italian and Dutch schools; music flourished, and in 1849 Gevaërt found treasures of old music hidden away in Spanish churches and convents; the theatre was invented, and the drama discovered, while France was still acting mysteries, and Italy confined herself to childish attempts, to pantomimes degrading to art; finally, the greatest glory of all, history and the domestic novel, painting, sculpture, architecture, and the theatre were at their zenith: they have never been surpassed; Spain created her own Renaissance.

At the same time, Spain was conquering a world—America; she formed the best army in Europe, that army of which Bossuet said 'Now the Spanish infantry advances!'—a worthy daughter of the national army of Viriathus, Sertorius, and Pelayo. We must not forget

that it was with Spanish soldiers that the great Carthaginian Hannibal held out for thirty years against the Romans: the troops who arrested Condé's progress had noble ancestors! Spain created a navy. Thus, in less than a century, we see the Moors driven out, America taken possession of, Italy conquered, Flanders subjugated; we see Don John of Austria, Ferdinand and Isabella, Charles V., Velasquez, Zurbaran, Lope de Vega, Calderon, Moratin, Cervantes, Alva, and Gonzalo. What names! what deeds! what masterpieces! Already Spain possessed her cathedrals, her quays, her arsenals, and those formidable ships which made Europe tremble, and which, had it not been for the tempest, might perhaps have annihilated the rising power of England, thus changing the destinies of the world, and securing for centuries the supremacy of the Latin race. Can we find in the history of any other people a more magnificent expansion of national genius? Spain might well look on indifferently while Europe took the Renaissance as a model; she had brought forth her Minerva from her own brain, and created her language at a stroke. From the time of Charlemagne, science and letters availed themselves of it, and were able to disseminate themselves; every other nation was left behind by means of this language—a national work which one man by himself, even were he Dante, would have been incapable of accomplishing.

What great difficulties an imperfect language puts in the way of genius and talent! The Middle Ages were weighed down by a vulgar, inadequate language; and even a hundred years after the Renaissance, European *savans*,

having no formed language, still made use of the Latin of the Middle Ages; France and Italy did not begin to throw it off until long after Spain. Between the 'Roman de Rou' and Bossuet or Pascal, lies a wide gulf; between the *romancero* and Cervantes there is no essential difference. For two hundred years the Spanish language was predominant in Europe as in America, and the Court of Spain was for two hundred years the model court. So much grandeur turned its head; kingly majesty fell asleep from satiety; the court sank into ceremonial; while the nation, intoxicated with wealth, power, and glory, languished in repose: these splendours gradually became extinct, but the language has remained intact, unalterable. It approaches the French language in precision, and surpasses it in everything else, as it does all modern languages. It is the most sonorous, the most flexible, and the richest. It adapts itself to music even better than Italian. It has but one defect, the *j*. This guttural, however, has not such a bad effect as some pretend. In the south of the Peninsula it loses its harshness, and in the two Castiles, the very focus of the language and of literature, it is made more or less harsh according to the word, and the meaning of the sentence, or the sentiment which the words are to express; it is also a letter which is comparatively but little used.

In the Islands, the ladies speak very pure Spanish; but what is most remarkable about their speaking, is the charm of their rhythmic sentences, and the sweet, dignified voice; the tones now slow, now rapid, half passion, half languor, which always characterise Creoles, and especially

Islanders, whose manners are always especially gentle, and whose way of talking is especially sweet.

'Say what you will, your vaunted Spanish does not equal German.'

'Well, my dear Krauss, I mangle it so abominably, that I think it detestable. If you had said Italian, now—that is a sweet, musical language.'

'As cloying as sweetmeats; English is the only language for men—'

'Shopkeepers and children,' said I. 'Spanish possesses everything in which French is wanting; but the latter, on the other hand, is clearer and more precise. I stick to my own opinion.'

'So do I.'

'And I.'

'And I.'

'To conclude,' I said, 'the best language is that which one knows best; therefore, as you can only murder Spanish, and cannot speak it—'

I was forced to stop.

The reader may form his own conclusions, so long as he is convinced that the Canarians possess a highly artistic organisation, and that they speak most beautifully a musical language, as sweet as it is forcible.

Chapter X.

THE GUANCHES—THEIR GOVERNMENT AND ORIGIN. ATLANTIS.

We have already described the Guanche customs, and we hope our readers have been able to form some approximate idea of the race. On the one hand, strong, agile, tall, handsome, courageous, and loyal; on the other, childish, credulous, easily deceived, leading on the whole a happy life in a favoured country; such were the Guanches. We have now to describe their government, to speak of their poetry, history, war, art, manufactures, agriculture, their civil, judicial, and military administration; to study their funeral ceremonies, morality, customs, cave life, kings, castes, pastoral life, and public ceremonies. We shall see the workings of this primitive world in Teneriffe and Gran Canaria, the most densely populated of the Islands. We shall then endeavour to find out the probable origin of the Guanches, and to give an opinion on the subject of Atlantis.

Teneriffe, the ancient Tchinerfe, possessed, as did also Gran Canaria, a real political administration. Gomera and Palma were governed, according to all accounts, in the same manner, with a few unimportant exceptions, which we shall mention at the proper time.

Power was in the hands of one man only; tradition is clear on that point. At some period impossible to define, the one sovereign of Teneriffe, named Tinerfe, having nine sons, these sons shared the island at his death, yielding by common consent to the chief or *mencey* of Taoro supremacy over the other eight; besides the title of *mencey* he also bore that of *quehebi*, which meant *majesty*, or *very great*. He exercised an undisputed supremacy over the others; his domains were more extensive, and his vassals more numerous.

The *Tahoro* was the open temple, the place sacred to justice, to the holding of the state councils, and to great public rejoicings. The mencey of Taoro was the more powerful from having the Tahoro within his territory. It appears to have stood in the parish of Guiamar, which is now covered with lava; it still bears the name of Tahoror.

In Gran Canaria there is also the Tagoror, near Galdar. It was here that the *Guanarteme* or mencey of Canaria resided; Canarian tradition is as clear as that of Teneriffe, and all the accounts are consistent.

It was in the district of Taoro, Tahoro, or Tagoror that the chiefs assembled for deliberation, the principal assizes were held, the interests of the country were discussed, and the national festivals celebrated; but each mencey had in addition his own especial Tagoror, where he administered justice, heard complaints, and received petitions and visits. An old mencey seated on his bench of basalt must have been the image of one of Homer's heroes. Presiding over the council, administering justice, or receiving guests, he must have exactly resembled the aged Nestor

receiving Telemachus. This likeness struck all the chroniclers.

On the accession of a prince, the Tagoror was strewn with flowers and palm-leaves, and all the people crowded to see the ceremonies. The new chief, welcomed with cheers, seated himself on the consecrated stone, which was covered with sheep-skins dyed scarlet. A deputation presented to him in a leather case the sacred bone, the insignia of royalty, the thigh-bone of a ram, the *royal femur*; the prince respectfully kissed this emblem of sovereignty, and said: 'I swear to make everyone happy, and to follow the example of him who bore before me this sacred bone.' Then the chiefs in turn took the royal femur and said: 'I swear from this thy coronation day to defend thee and thy race.' Here was the feudal system—the king and his principal vassals.

Viana says that the oaths were taken on the skull of an ancient king; but there is nothing to support this assertion, while, on the contrary, all agree in mentioning the oath made on the sacred bone.

The oaths terminated, the mencey was crowned with flowers, not with the legendary crown invented by the annotators of the works of the fathers; by an idiotic anachronism they took it into their heads to crown the menceys with crowns made of pasteboard, such as you see in theatres. The mencey, then, was crowned with flowers; and, this done, he invited his nobles and villeins to a feast, and took his seat at the banquet. After the banquet came wrestling and dancing, which were kept up all night long by torch-light. Even in war-time hostilities were sus-

pended to allow of the celebration of the festivals; friends and enemies wrestled and danced together. Happy people! political antagonism could not make them forget that they were born to be happy, not to tear each other to pieces; to enjoy life almost without labour, not to weary themselves with endless wars.

When the mencey travelled through the country he was preceded by a Guanche carrying his banner or pennon; this was a staff with the head of a bulrush at the end, which reminds one of the Egyptian and Arab horse-tails. The prince's subjects saluted him as he went along by prostrating themselves.

On the anniversaries of the coronation day, the dust from the chief's shoes was wiped off and respectfully kissed. These anniversaries were great days. Some brought the chief flowers, others fruit, chaplets of green leaves, or choice skins; people of quality kissed his left hand, the chiefs and nobles his right hand, the common people his sandals; everyone knelt and cried, 'We are thy servants!'

On such occasions it was really a grand sight to see these crowds manifesting their joy by loud cheers, the chiefs defiling before the mencey, while the women, standing apart, formed the background of the picture. The chroniclers were greatly struck by it.

Thus at the head was the king of all, king also of a particular district.

Under him, but also reigning over a district, were his chief vassals.

Beneath these a happy people.

Between the people and the vassals came the nobility, and then the wealthy classes.

The mencey administered justice within the enclosure of the Tagoror. When the delinquent—a thief for example—was led before the judge after judgment, he was thrown on the ground and beaten with the prince's pastoral staff or crook.

Capital punishment was certainly unknown among the Guanches of Teneriffe, at least as a legal institution practised by the government; yet the poet Viana, in his epic poem, speaking of those who were guilty of insulting the monarch, says: 'The law ordered that they should be put to death cruelly, as criminals, generally by stoning.' But no historian has ever confirmed the poet's assertion. It may be laid down as a general principle that, living under the law of nature, the Guanches were, like other primitive nations less highly gifted and in less fortunate countries, governed by the law of retaliation. Such a law alone could be a safeguard in a primitive state of society where neither justice nor the power which sanctions it had as yet appeared. We shall find in the smaller islands traces of this law, which lingered there, where the dreaded belt of sea was too small to allow of the criminal's flight, so that justice could in no way remove him out of sight of his victim except by putting him to death. In one of the smaller islands the adulterer was buried alive; in another the relations of the victim might take the murderer's life; in a third the criminal was put to death by the executioner, it having been found that retaliation in cold blood—murder for the sake of revenge—excited reprisals

which it was imperative to prevent. This was not the case in the large islands, where the assassin was banished to some distant valley, after being in some way civilly degraded, and deprived of his property. Adultery was punished by imprisonment. In those great islands life was so easy, there was so little distinction between mine and thine, manners were so sociable, and the government so paternal, that crimes were very rare, and robbery was almost unknown. The chroniclers have never in their frequently puerile narrations accused the natives of the love of plunder, whether excited by envy or mere covetousness. Female thieves were always pardoned, with the exception, perhaps, of the vestals; male criminals were only condemned to follow vile, low occupations, and were either made butchers or set to prepare human bodies for embalmment. Capital punishment certainly never took place in Gran Canaria or Teneriffe, at least as a state institution, during the eighty years and more that the struggle lasted between the conquerors and the islanders.

If the tradition of capital punishment, of retaliation carried on in the smaller islands, was perpetuated until the Conquest, and if certain chroniclers have imagined it to be a general law, it is because the dire necessity imposed on the natives of Hierro and Gomera by the smallness of the islands was taken to be a law common to the whole Archipelago. If, on the other hand, some chroniclers have affirmed that the Guanches never inflicted capital punishment, it is because they judged only from the state of things in the large islands.

Such is the opinion we should adopt on the subject if

it were not for one objection. All the historians, or nearly all, mention the existence of a kind of executioner or hangman. This fact, which appears clearly proved, implies some contradiction, unless we suppose that these executioners formed a sort of pariah caste, into which certain criminals were forced, not to perform its duties, but for the sake of degrading them by a most terrible moral punishment, that of being qualified executioners.

All primitive races have shown us an example of paternal government, exercised by an unmixed race ruling over an inferior one. After Noah's deluge the ideas of absolute command prevailed, servitude was established, and might became right; the Bible proves it. With the Guanches, a primitive race, the practice of right was a privilege, but might was subordinate to it. As we shall presently see, there were two castes, which must not be confounded with the division into two parts which we have just pointed out, and which indicates not two families disputing a share of the power with each other, but rather one part of the nation apt to exercise it, and a second, far more numerous, destined to servile labours; they were, however, somewhat similar.

As was the case among all primitive races, power was based on theoretic principles. In the beginning of the world, said the Guanches, after the land and sea were made, God created a certain number of men and women, and gave into their hands everything on earth. He then created more men, to whom He gave nothing. They demanded their share, but God said to them, 'Serve the others, and they will give to you.' Thus originated

masters and servants, nobles and people. This tradition is constantly met with.

Thus the nobility sought its origin in divine right, and found its strength and stability in religious tradition, like royalty. The Guanche sovereigns, as well as others, talked of their divine right.

The nobility was hereditary, but might be attained by glorious deeds. It emanated from the monarchy, and was protected by a *sacred religion*, known only to the hierophants and completely hidden from the vulgar, just like the Egyptian rites. It is impossible to find out what this religion was, or what the rites were. Was it in the hands of a religious sect like the Templars? Did that sect include the whole of the nobility, or only some isolated members of it, a privileged caste? We shall give our opinion on the subject presently.

Social order, as we have said, was founded on the hereditary principle. The mencey enjoyed an hereditary dominion; the nobility, the religious caste, and the princes recognised him as sovereign, *primus inter pares*. These princes were descendants of the royal family—*archimenceys* below the mencey, the great vassals. The nobility, in return for its privileges, served the state by administering justice, taking the command in war, and advising in the council.

By a recognised fiction, the mencey was the owner of the soil, giving the usufruct to his people, among whom he divided the land. Very little labour kept them in easy circumstances; large flocks constituted their only wealth. These grants of land, proportioned to the family, were only

temporary; on the death of the owner they either returned to the sovereign, or were increased if the family had increased. It being thus impossible to acquire property, ambition was unknown. Those agrarian laws were therefore advantageous to the sovereign, who could have no rival either in wealth or power, and were advantageous to the people, to whom they secured a subsistence. In these laws we may also discern a barrier against the invasion of the privileged castes. Already in possession of a moral supremacy based upon a superior education, it was necessary to prevent their monopolising the public property. The Guanche agrarian laws protected the weak. It is a remarkable fact that at the time of the conquest of Peru it was found that the Incas had the same law—the chief distributing land according to the size of the family.

The care of the flocks, and the choice of pasturage according to the seasons, were the Islanders' most important occupations, of which they made quite a science. These model shepherds counted their flocks at a glance, collected them at call, knew which was the mother of each lamb, and passed their lives under the shade of enormous laurels in weaving baskets, playing the flute, singing the loves or wars of their ancestors, and dancing: it was the pastoral life of the earliest ages of the world. Goat's flesh, milk, the shepherd's pipe, basket weaving, all these belong to the poetry of Hesiod or Homer; this life is that of the shepherds of old fable, of the Egyptians in primitive times, of Persia and Arabia. Let the foaming milk be poured on the ground from an amphora of Egyptian make, and

we shall have a perfect picture of the primitive races. It is a picture of Guanche life.

The Guanches apparently formed a kind of insular family, divided into confederate tribes. There were probably two castes in this great family. These two castes, which some have considered as forming two nations, or even two races, have never afforded either to the philosopher or the historian a fixed point which might serve as a basis for such extraordinary assertions. It is far more probable that these two castes, often living side by side in the same island, were two divisions of one family separated by political or religious differences. These two castes were often at war with each other. Duels and challenges kept alive the feeling of antagonism; two champions armed with powerful short sticks, called *tesseres*, killed each other for a cause never specified, and which we shall in all probability never find out. There may have been at the bottom of these quarrels a cause which the spirit of discord perpetuated without explaining—the influence of the evil principle which is innate in men, and is with difficulty kept in check by the best among them. Races more disposed to evil than to good destroy each other, while among those in whom a better nature predominates, war, a necessary consequence of the evil principle not yet vanquished, is more humane, and takes the form chiefly of single combat. From these wars we may conclude that the two inimical castes were equal. They differed entirely from the castes of India. The Guanches married without distinction of caste, which at once proves that they were equal. The warriors, *althayas* or *altahay* (courageous),

were powerful and respected. Those who were renowned for peculiarly brave deeds enjoyed certain privileges; they held the highest rank, and their persons were sacred. Was this aristocracy a governing one? No. Was it charged with the duty of making the laws respected? Did it execute them? Or was this the office of the chief only? It appears so from certain vague indications.

The noble caste was not numerous, but was very powerful.

Each tribe was probably governed politically by a chief —dux, rex, or mencey, according to the three words used by the chroniclers; this chief was absolute in matters of judgment and of power. Was he pontiff as well as king? We cannot tell. The worship of nature in her two great manifestations, the heavens and the earth, which we seem to discover from the form of the temple, necessitated at least one pontiff. Even if everyone could enter the temple, and pour milk on the earth from the sacred urn, pontiffs would still be wanted; at all events there were priests belonging to the temple taken from among the nobility and called *Faycay*. The temple, by its form, was the symbol of a patriarchal life given up to nature worship. The small inner circle typified the earth; the wide ditch between the two circles, the sea; the large circle, the celestial sphere, the starry sky. As the wealth of the tribe consisted entirely in flocks, they offered in sacrifice to Mother Earth sheep's milk, poured from the *ganigo*, or sacred urn, upon the earth itself.

The chronicle of Azurara informs us that the Guanches believed in the immortality of the soul, which is very

possible, although nothing in their religious ceremonies proved it; their belief was, perhaps, like that of their African brethren, who affirm that men's souls live in the thickets, and look for them there occasionally; then, not finding them, think no more of them. Azurara tells us that the Guanches believed in a God who rewards and punishes men according to their deeds; also that the government was in the hands exclusively of the nobility, whose number was fixed at, he says, between one and two hundred in Gran Canaria. When the number was diminished by death, a selection was made from among the sons of the nobility, so that the minimum was always kept up. 'It is these nobles whose duty it is to preserve the traditions of the primitive faith, which they only divulge to certain persons whom they deem worthy.' This system of secrecy is a characteristic sign of primitive religion. From the Druids to the Guanches, from the Guanches to the Egyptians and the Greeks, religion was in the hands of pontiffs, who, under pain of death, could only impart its mysteries to the initiated. As revelation forms the basis of all modern religions, so secrecy was the foundation of the most ancient.

The nature of the soil furnished the Guanches with ready-made houses in the shape of caves, *cuevas*, as they are still called, which sheltered them perfectly, especially in that mild climate. In summer the Guanches preferred the caves among the mountains, in winter those on the coast. Those in the mountains were the work of nature, those on the coasts the work of their own hands. They constructed them in the friable tufa, choosing beds of lava

five or seven feet thick lying between layers of basalt; the tufa was taken out, and the cave was ready. The most celebrated are those of Guiamar; they have interior divisions and square rooms; the principal room is always lighted from the entrance; the dark rooms, used either as sleeping apartments or store-rooms, were provided with niches hollowed out in the stone, in which were kept jars of milk, water, or fermented liquor; other rooms contained cheese, a mill, and stores of flour or corn; in the large, light room, benches made in the rock afforded seats all round, like a Turkish divan.

Pliny, who has handed down a portion of the voyage of Hanno, sent out by King Juba, says that Juba's envoys found a small Carthaginian temple in an island which they named Junonia, after the name of the tutelary goddess of Carthage; they found also the ruins of some houses (*vestigia ædificiorum*); these must have been built by the Tyrian navigators, who came in search of purple. But the aboriginal natives of the Islands were troglodytes; otherwise houses would soon have produced villages, and villages towns, and towns civilisation, which would not thus have been delayed for thousands of years.

Viera maintains that the Guanches had houses in Teneriffe. It is easy to explain this seeming contradiction, for these buildings were posterior to the advent of the conquerors or to the arrival of vessels which had touched there. We must not forget that in the fourteenth century, and even at the end of the thirteenth, the Guanches had been visited, and had taken some prisoners. Some of them had been carried off in 1403 or 1404 to

Spain and Portugal, and had afterwards returned to the Islands. From a careful study of various writers it appears that there were no houses in Teneriffe, and that all the inhabitants were troglodytes; we cannot draw any conclusions from the existence of a few rudimentary buildings in Teneriffe, even if it were proved; the Guanches always preferred caves and grottoes to buildings. The inhabitants of Gran Canaria, where the caves were only in a few localities, were obliged to live in places where there were none, either for the sake of pasture or arable land; the imperious law of necessity forced them to build caves or houses more or less rudimentary. In Teneriffe this necessity did not exist; the southern belt, a great deal of which was desert land, possessed an adequate amount of caves; the mountains and the northern belt contained any number of them. The fathers maintained that the Guanches were not troglodytes, because they wished to make out that they were not a primitive race, which would not have harmonised with their interpretation of the Bible.

The most astonishing fact to all historians, ancient and modern, is that the Guanches had no idea of navigation, although every circumstance seemed favourable to their learning it—their insular position, the proximity of the Islands, their innate curiosity or need of knowing one another, the skill they displayed in fishing, and their great liking for fish, their love of swimming, and the great skill as well as strength which they manifested in the exercise. But these historians have forgotten to bear in mind the origin and history of the race. Terror of navigation was

natural to all primitive races; those of African or Keltic origin did not go on the sea, nor did the Indians; it was a religious dogma among all pre-historical races that water was evil, the abyss, the accursed element. The American Indians never went on the sea, nor do the Arabs; water is certainly esteemed a blessing by the latter, but it is spring or rain water; salt water is held in contempt, and accursed. Among them, as among all other primitive races, there is but one opinion: 'Water once covered the earth and destroyed everything living; water will one day again cover the earth; water is the instrument, the scourge of God.' Perhaps there is no stronger philosophical proof of the destruction of Atlantis than this terror of the water. It was natural to a race living in a land submerged by the ocean, with the exception of seven rocky summits, on which a few shepherds survived.

Strictly speaking, the Guanches never made war among themselves, except in Lanzarote, where they only fought for their chiefs, in whose quarrels they took but little interest. The Guanches were not of the same nature as those American or Australian tribes who destroyed each other in their fury or despair, unhappy, inferior races, to whom shedding the blood of others was a delight, shedding their own blood an unrivalled glory. Their private wars were never destructive nor very sanguinary, and except, perhaps, in Lanzarote, where a sort of rivalry divided the island, it does not appear that there were any national animosities, but merely disunion; and even this disunion was engendered by the long wars with the Spaniards, which decimated this or that district to the detriment of the

others, and created dissensions among the various chiefs. They never destroyed each other, but reserved their lives in order to sell them dearly to the Europeans. They knew that their unimportant intestine wars ought to serve especially as a kind of practice, somewhat more violent and exaggerated than their ordinary wrestling matches; they entertained no hatred for each other, and never harmed the vanquished.

Had they an art of warfare? Probably, for even before the successive conquests military tactics were not entirely unknown among them; they endeavoured to take up the best strategic positions, and took advantage of the nature of the ground during an action, which proves their intelligence. The Guanches had no enclosures meant to serve as camps, but instead those Pelasgic or Cyclopean walls which are the characteristic monuments of primitive races. They possessed, like the Romans, a system of very rapid telegraphy, beacons on the mountains, and concerted signals visible at great distances; for important or secret messages they established men at certain distances, who warned each other by whistling. They knew how to divide their forces so that they might be used successively without weakening themselves, and that those who were disabled might be replaced by fresh troops. This strategy appears to have been unknown before the Conquest, and to have originated in Gran Canaria, where the Guanches were divided into six corps, commanded by six generals, taking their orders from the king, and called Guayres. The struggle with the Spaniards originated tactics; although the struggle with the slave-dealers had given rise

to the idea of fortifications among the natives of Lanzarote and Fuerteventura.

The Guanches were very skilful in the construction of their weapons—axes made of obsidian, with a sharp edge hardened in the fire; powerful slings; and arrows which they aimed with great skill. The *banot*, a terrible kind of barbed dart, was their best weapon. From the wood of the dragon-tree they made shields, which the swiftest arrow could hardly penetrate, and from which it could not be drawn out.

They had several kinds of games, such as quoits and boxing, but their favourite amusement was wrestling, and of this they were passionately fond; it was hallowed by their laws and their religion. The sanction of the mencey and the faycan was necessary before any public wrestling match could take place. The wrestling matches in Gran Canaria were exactly like those of the Greeks. The combatants rubbed their bodies over with grease, and practised beforehand with a tree, so as to keep themselves in training. There were arenas for the public games; the wrestlers stood within a circle raised a few feet above the place for the spectators, so that everyone might see them. The judges placed the champions, and seated themselves on two stone benches which stood one at each end of the arena; the wrestlers' relations were to remain motionless and silent. First of all the athletes were to throw stones at each other without moving their feet, and they were so skilful in parrying blows that the stones very rarely hit; this was only a formal prelude. Afterwards their movements were unfettered; they encountered each other

armed with lances and axes, and the real struggle began. No rest or breathing time was allowed until a wound, very rarely mortal, was inflicted. As soon as one was wounded the judges cried '*Gama! gama!*' (enough!) In some combats the champions stopped when a lance was broken; if they were tired they could rest, and in the interval they ate and drank together like brothers.

The Guanches were so sensitive on the point of honour that this sentiment assumed such proportions as we only find in Japan and among Kelts. After a combat where the victory was undecided one of the champions said to the other:

'Wilt thou do all that I can do?'

'Yes.'

'Thou swearest it?'

'I swear.'

The first man calmly threw himself over a neighbouring precipice, and the other followed his example.

The Japanese perform the 'happy despatch,' and the Kelts killed themselves merely as a point of honour, and to prove their courage.

The morals of the Guanches were pure; let the reader judge for himself.

'Avoid those whom vice renders contemptible, otherwise you will be an offence to your fellows. Associate with the good; help and succour everyone.

'Be good if you wish to be beloved.

'Despise the wicked; love the good.

'Value the friendship and esteem of the good only.

'Never tell lies.

'Be an honour to your country through your courage and virtue.'

Such were the general maxims of the Guanche race. What can be more simple, more complete, more beautiful? Unconscious inheritors of the morality of the primitive races, from whom they had as by a miracle retained nothing but the grand principles of humanity, rejecting all their evil principles of animosity, robbery, and ferocity, living in a propitious climate, where nature lavished her treasures upon them, the Guanches must have been happy with such maxims, which they were compelled to teach their children.

Now that we know something of this kindly race, whose chiefs were the bravest, noblest, and most virtuous among them, we can enter upon some details relating to their funerals, their embalmments, and their mummies.

The chief, or mencey, was entitled to a splendid funeral. His position and exercise of authority had almost always made him beloved, for his authority was but the administration of paternal government, and had gained for him the veneration of all his people by the practice of public and private virtues; his body, carefully embalmed, was sewn up in different skins, laid in a pinewood coffin, and placed in a royal niche in a cavern high up among the mountains; in his hands were placed the femur, the emblem of royalty, and an amphora of milk.

The Guanches held the dead of every rank in equal

respect, but only the chiefs and those belonging to the highest class were embalmed; the common people were wrapped in their cloaks and laid in caverns, where their whitened bones may still be seen.

Each island possessed an official body of men, a kind of caste—that of the embalmers; they also practised the art of enveloping the corpse in bandages, and making the *xaxo*, or mummies, just like those of ancient Egypt. This corporation was highly esteemed, while those who prepared the body for embalmment were looked on with aversion, and were criminals leading an isolated life. The corpse, having been disembowelled, was first of all washed twice a day in salt water; the mouth, ears, and nostrils were hermetically closed; then the more delicate parts were anointed with butter, aromatic herbs, and cinnamon; after which the whole body was sprinkled with resin, powdered pine bark, pounded pumice-stone, and various astringent and desiccating substances.

During a fortnight's exposure of the corpse in the sun the relations of the dead sang his praises. When it was quite dry and light it was wrapped in goatskins or sheepskins, more or less carefully prepared according to the rank of the defunct, and a mark was made on the body, in order that it might be identified at a future time. This operation concluded, the mummy was laid in a sepulchral cave, set apart for the purpose, and nearly always very difficult of access; the bodies which were placed in the sepulchres were set upright against the walls of the cave, while the mummies were laid down flat on benches, side by side, with their heads to the north.

These benches were made of excessively hard, imperishable wood, the wood of the juniper-tree or *mocan.*

How was the embalming done? Only some incomplete formulas have come down to us; firstly, because the art of embalming was a sacred office, not to be confided to the profane; secondly, according to Sprat, because after the Conquest the Spaniards destroyed the priests and embalmers, in order to decapitate, as it were, Guanche society and to prevent the heads of religion from exercising any influence over those Guanches who had fled to the mountains. So that sources of information on the subject are wanting. However, we know for a fact that the embalmers used butter mixed with grease made for the purpose; they boiled this with certain plants, especially a kind of lavender which was very abundant; they also used a herb called *lara*, which yielded a gummy, glutinous substance, cyclamen, and sage. These unguents served, after the body had been washed as we described, to anoint the flesh, which gradually disappeared from the action of the sun; the anointing was repeated until the body became extremely light, which was a certain sign of the successful termination of the operation. Nothing now remained to do, except to wrap the body in skins and bandages; the skins had the hair taken off.

As for the poor, their heads were separated from the body and not dried; the skins in which they were wrapped retained the hair, and they were not bandaged.

According to Scory the Guanches had a sort of mourning, which lasted while the mummy was being

prepared, and ceased as soon as it was deposited in the sepulchre.

Purchas says that he saw two of these mummies in London in the year 1700; he says that they were more than a thousand years old, but does not inform us how he knew this.

All the chroniclers contemporary with the Conquest assert that the time the mummies lasted was incalculable.

Sprat, an English traveller, tells us that in 1650 he visited a sepulchral cave where there were more than 300 bodies in a state of perfect preservation.

Edens, an English physician, who visited the island in 1652, obtained from some Guanches who still survived permission to visit the cave of Guiamar; he owed this permission, he says, to his being a physician. He found nearly 400 bodies perfectly preserved; hair, beard, and eyebrows were all perfect. The next year, while out shooting with two Englishmen, one of them found an entrance to another cave behind some bushes; he entered and was lost in astonishment. He was so terrified that his voice trembled even the next day. He declared that the skin of these bodies was as soft as a kid glove. Sprat asserts that the nerves, tendons, veins, and arteries looked like small cords.

A hundred years later Beckman and some English travellers went into a cave containing more than 300 bodies which had escaped destruction. They mention the perfect condition of the mummies, and say that the skin had become as dry as parchment. Charles Middleton, in his 'Great Dictionary of Voyages,' published in 1778,

gave a drawing of a cave at Guiamar, in which hardly any mummies remained.

Since the year 1660 mummies have been sought for in vain, except once or twice. In the eighteenth century only a few Guanches survived, who, in consequence of the frequent intermarriages with other people, were by no means of the pure race; they were ignorant of the Guanche burial-places: a few years later it was impossible to find one. If any still exist in some forgotten cave, they may, perhaps, one day be discovered. According to tradition the Guanches affirmed that there were more than twenty sacred caves in Teneriffe alone, and as many in Gran Canaria, but that they did not know where they were, the priests and embalmers, who were the only ones in the secret, being dead.

In Gran Canaria the mummies did not last so well as in Teneriffe, on account of the nature of the soil. A number of very strong earthenware vases, shaped like those of Egypt, were found in the caves.

We possess also some very important modern testimony. M. Bory de Saint-Vincent, in 1802, had a perfect mummy which he used in his studies, and which he gave back to the person who had lent it him; this mummy passed from the hands of Brossonnet into England, and is now, perhaps, in some private collection, and probably taken for an Egyptian mummy, for we have never heard of a Guanche mummy in any English public collection. In 1827 M. Berthelot offered a considerable reward among the shepherds in order to procure a specimen. He was but partially successful, for the mummy he obtained was

not perfect, and indeed had escaped destruction only on that account. This mummy passed from hand to hand, and M. Berthelot saw it again twenty years afterwards in a museum at Geneva, where it was looked on as one of the greatest curiosities in the collection. We may add that M. Berthelot has seen a sepulchral cave where the bodies and mummies were merely placed on logs.

It is an undoubted fact that, after the Conquest, the Guanches concealed the sepulchral caves; but the conquerors, who had all heard, about the year 1500, of the gold and silver mines of America, examined all the mountains and discovered these caverns. Out of mere spite, furious at not finding gold, they destroyed everything. Thus, not content with having sold the Guanches into slavery and slaughtered them during a hundred years of warfare, the Spaniards destroyed their dead bodies and violated their sepulchres as well.

In Gran Canaria and Lanzarote tumuli have been found belonging to primitive races anterior to all civilisation. The bodies were buried under stones in the form of circular pyramids. The art of embalming mummies was posterior to these.

The custom of embalming the bodies of sovereigns may be accounted for by the prestige of authority and the respect it inspired; but when respect for the memory of the dead is general among a people, it is a sure indication of an elevated morality; this piety, whilst giving birth to the art of embalming, indicates throughout the nation a deep feeling of tenderness and veneration, which is only

met with among races capable of strong affections, noble ideas, and profound morality.

The Guanches, then, were under a monarchical government similar to that of France under Saint Louis, supposing the States General and Provincial to have been in permanent session. This monarchy was supported by the great vassals, who reigned over districts of their own. There was a body of priestesses, or vestals, and priests, forming a sacerdotal family; a natural religion, a nobility, a pastoral people. Nobility, clergy, and kings, all derived their authority either from hereditary succession or from their merit. There was an organised system of justice; laws were handed down by tradition; the chief administered justice publicly. The civil government was in the hands of the nobility; the army consisted of all the able-bodied citizens. Public instruction was limited to the inculcation of moral principles. Land was distributed by the chiefs according to a capitation law; men and women all had their parts allotted to them. It was, as may be easily seen, a regularly constituted society, a true type of primitive societies anterior to slavery, which did not appear until after the Stone Age, at least as a recognised institution; it was the Keltic government, the government of the Caucasian races anterior to the Noachian deluge.

What was the origin of these people? It is a purely ethnographical question, insoluble if one seeks for irrefutable proofs based upon incontrovertible facts. Such facts certainly do not exist, but traces, indications, traditions, coincidences, evidences, are numberless, and

afford a quasi certainty. We have from time to time pointed out similarities between the customs of the Guanches and the Egyptians; these similarities may be explained by Egyptian traditions preserved by the Greeks. The purest philosopher of antiquity, Plato, who was called The Divine, speaks at great length and in two different works of Atlantis and the Atlantes. An extract from it is indispensable.

In the 'Timæus' Plato relates that during his childhood his grandfather Critias, who was then living (old age is garrulous), told him:

'Solon was my master. Now Solon had travelled and resided in Egypt, whence he brought back philosophical and political information which he taught the Greeks. He learned science from the priests of Saïs, a town in the Delta, where one of the priests, who was learned in the science of history, said to him: "O Solon! Solon! you Greeks are as yet but children, and know not the history of Egypt. But we preserve in our sacred books a *written history of more than nine thousand years*! You only know of one deluge, but it was *preceded by many others*; Athens, which you believe to be new, is very ancient, and I will tell you how your Greece preserved to us Egyptians our liberty by resisting *the enormous forces which came from the shores of the sea of Atlantis*. This sea at that time surrounded an island not far from the Pillars of Hercules, and larger than Asia and Libya put together; between it and the continent were some smaller islands; this gigantic country was called Atlantis. It was peopled and prosperous, governed by powerful kings, who seized

the whole of Libya as far as Egypt, of Europe as far as the country of the Tyrrhenians; they reduced all the nations on this side the Pillars of Hercules to slavery. The ancient Greeks then rose up, defeated them, and delivered Europe from slavery.

'"But a still greater misfortune awaited the Atlantes;' for at that time, when there were *earthquakes and inundations*, the island was swallowed up. The inhabitants of the island, which was larger than Europe and Asia together, disappeared in a single night. This is why that sea is not navigable, on account of the shoals formed by the submerged land."'

In his 'Dialogues' Plato says again:

'Neptune had for his share Atlantis, which at his death he divided among his sons; but Atlas, the eldest, had the largest share, on which account this celebrated king and astronomer gave his name to the country. Never was prince more wealthy; his land abounded in riches, and people found there an adequate sustenance; it was fertile, healthy, beautiful, marvellous; it was terminated by a range of mountains yielding gold.'

A description of its treasures follows:

'But states decay, nations become corrupt, and governments also; the Atlantes grew impious and depraved. They angered the gods by their crimes. Jupiter called the other gods together to the celestial abodes which are situated in the centre of the universe, in order—'

The rest is lost, and has not come down to us.

We may without hesitation conclude from this historical picture that the Atlantes were anterior to the Greeks and

even to the Egyptians, and that they carried civilisation to the nations of Africa and Europe. The vestals, mummies, stone temple, the numerical system, the calendar, astronomy, division into tribes, their shoes, the way they dressed their hair, the priests' caps, some words of the language carried into Egypt and Greece, consecrated stones, the circular temple, all these come from Atlantis, not from Caucasia. The Atlantes were masters of Libya, and there we still find the race, the language, the tribe, and the name, the banner or pennon, and the pastoral life. The Guanches were therefore a branch detached or isolated, by some cataclysm, from a stem of which the Berbers are the last representatives.

The reader will doubtless not have forgotten that we have already discovered names of tribes, rivers, mountains, districts, and even the very name of the Canary Islands (Kanar or Canarr), on the Barbary coast, now part of Morocco; the Guanche language was the ancient language of Barbary, the ancient language of Atlantis; in the same way the Islands are nothing but a portion of the kingdom of Atlas. It is true that isolation so far impoverished the Guanche language as to make the native words differ in some degree from the Berber words, and caused those which designated things no longer seen to disappear—such as *horse* and *ship*, for example.

We have given the Guanche names for various objects, and these names will suffice to give some idea of that sonorous language, in which the vowels and consonants were properly balanced; it was also an easy language, and during the first century after the Conquest it was

spoken by a great number of soldiers; both Normans and Spaniards learned it very rapidly, especially the Normans. How ought we to classify it?

According to ethnography there are five great classes of languages; in the third, called the African class, we find the language of Atlas, known as the Berber language, *anterior to the language of the Nile* (Egypt, Nubia, and Abyssinia). At the present day the Berber language, still a living one as it was in the heroic ages, is spoken within the African triangle, as it was nine thousand years ago, according to the priest of Saïs.

The Arab and the negro have invaded the Berber territory, but they continue isolated foreigners. In Morocco, Algiers, and Tunis, the Berbers are divided into numerous tribes, whose customs resemble those of the aboriginal Atlantes; this race has many branches, and in these branches the language has undergone important alterations, while at the same time preserving its Berber character, among the Kabyles in Algiers, the Tibbous and Touaregs in the Sahara, and the Amazighis in Morocco. The Berber is distinguished from the Arab by having a fixed habitation. If the Guanches were troglodytes, they became so from local exigencies; they were never nomadic any more than the Berbers.

The Guanche race is beyond dispute a white race; their name proves it, for both in the Keltic and Guanche languages *gwuern*, or *guarn*, means *white*. The skin is neither brown nor yellow; the type is perfectly white, and the Caucasian race itself is not finer. Indeed, with the exception of a somewhat more marked development of

the jawbone, it would be difficult to trace any anatomical distinction. The facial angle is that of the most highly favoured white race, the skull is just as well developed, the hair is straight, the eye well placed, the mouth expressive; the stature tall, the face oval, the skin white inclining to brown, the hair black. In the technical language used in our day to describe races the Guanche race, a white Indo-European race, should, in our opinion, be thus described: Facial angle between 80° and 90°; subdivision, *Indo-Keltic*. Or the Guanches may be put down as exclusively of Keltic origin.

The early Spanish conquerors were dishonest in describing the Guanches as an African race, yellow, brown, or black; they wanted an excuse for slavery, and the colour of the skin was a grand excuse. Happily for truth and for history contrary testimony abounds, and the race has been preserved down to our own days. We have seen in Gran Canaria several heads which were Guanche in shape and appearance; between Garachico and the Realejos we were shown a descendant of a mencey of Teneriffe, whose head was exactly that given by Messrs. Webb and Berthelot; energy, grace, and intelligence were, it seemed to us, its characteristics. The types studied by Messrs. Berthelot and Webb cleared up the matter long ago in the eyes of scientific men. Besides, not all the chroniclers were dishonest; several mention the whiteness of the race. If men have no right to put forward colour as an excuse for slavery, still less have they a right to invoke the inferiority of a race which is really not inferior.

Was this Berber or Atlantid race autocthonous, born

on the Atlantid or Libyan soil? Can we assert the existence of Atlantis and describe its geographical position? These two questions are closely connected, and are too important for us to decide. For 2,000 years they have occupied philosophers; in ancient times they afforded matter for those discussions of which the Greeks and Egyptians were so fond, and with which the echoes of the Academy resounded. All the ancients believed in the country of Atlantis, a belief still retained in the East. Thus from Homer, the father of poetry, down to Bory de Saint-Vincent, the Canary Isles have been to the whole world the remaining fragments of the ancient continent of Atlantis, and the Guanches the direct and purest descendants of that race of Atlantes who civilised Africa and Europe 9,000 years before the Christian era. Within the last 100 years doubts have arisen on the subject.

The modern science of geology has thrown a new light on these obscure questions. If it be true that the primary strata were more fitted than those that followed to receive man, which is reasonable, Brittany, Wales, and the submerged land which formerly united them must have been the cradle of mankind, of the white race. It was on these granitic rocks, the most ancient in the world, that that Keltic race of Cymri and Gaels had birth which occupies the principal place in ancient tradition. Between the Bacchus of the Gauls, Ram, the civiliser of the East, and the various Brenns, or chiefs, who pillaged Greece and Rome and disappeared in the Scythian wilds, more than 7,000 years elapsed. During this interval the

Kelts peopled or conquered new countries, in which there was not as yet the cohesion which allows of resistance. We find them to this day in Asia on the boundaries of Thibet with their cromlechs and menhirs, on the shores of the Rhine and the Danube, in Spain, Portugal, and Morocco. In our opinion, which we give with all reserve, Atlantis, a country of either primary or secondary formation, was peopled by them in the earliest ages of mankind, the Stone Age. When Caucasian civilisation gave birth to three invasions—Indian, European, and African—one Caucasian branch attacked Libya; but this circumstance, posterior to the Noachian deluge, did but modify the race, for we cannot find among the Guanches the customs, habits, religion, or politics of the Caucasians; on the contrary, everything indicates prior invincible civilisation, carried by them into Egypt and Asia Minor. This idea, this manner of interpreting Guanche history, would thus agree with Plato's account, which we must allow carries great weight with it.

Some have maintained that the Atlantis of the ancients was nothing more than America, which was then either joined to Africa or only separated from it by a narrow channel; they have seen in the shape of South America a proof of this. If we carefully examine its shape and that of Africa, we shall find, say they, the most perfect identity; the west coast of Africa is exactly similar to the coast of America; South America is Africa reversed. Thus, according to these philosophers, Africa and America were once united, until a violent separation submerged that portion of the globe. It is indisputable that a

depression of the submarine soil divides them; the sea has hollowed for itself an enormous and deep channel. This depression is a highly important consideration for the partisans of this theory.

If we were now obliged to say what must have been the shape of Atlantis, if we were obliged to decide between all the opinions put forth on the subject, we should not hesitate to affirm that the continent of Africa advanced farther into the Atlantic Ocean than the Islands do now; the shape of Africa appears to prove this.

We do not believe that Africa was ever joined to South America, or only separated from it by a few islands; but rather that Africa, whether in the form of a peninsula or of a prolongation of the continent, extended from the Straits of Gibraltar to the Azores, and from the Azores to the Bissagos, passing westward of Hierro, how far it is difficult to say.

If we decide on the peninsula, we shall have, on a larger scale, an outline identical with that of the peninsula of California.

This is the hypothesis of Bory de Saint-Vincent.

If, according to our own ideas, we adopt the theory of a continent going off into a peninsula, we should have to add to the actual very perceptible advance of the west coast of Africa, nine hundred miles to the west and an extension of Africa to the north for eight or nine hundred miles into the sea, starting from the Straits of Gibraltar. This hypothesis agrees better than any other with Plato's account; we should thus get an outline similar to what that of Spain would be if the Biscayan coast extended as

far as opposite Bordeaux, at a distance of six hundred miles, and thence went off in a straight line to Portugal, Leon, and Asturias.

It seems to us that this prolongation into the Atlantic becomes a necessity if we wish to find an explanation for all the traditions, fables, ancient geography, language, customs—in a word, everything we have enumerated. To this nothing can be objected but Plato's expression, 'This sea surrounded an *island*,' &c. To this only apparent objection, we may reply that the heights of Atlantis formed islands *after the cataclysm*, and that this insular form had attracted attention, so that the priest of Saïs had on this head confounded the actual and former condition of the country. This explanation is worth but little. Geology affords a better one. All primary countries which emerged in the first ages of the globe *were islands*. Continents are the result of time. Atlantis, formed by an upheaval of the Atlas Mountains, or by Neptunian action, might have been an island like the triangle formed by Britain, the Armorican coast, and Cape La Hogue, which repeated convulsions and deluges have changed into sea, islands, and fragments of continent.

Africa, prior to the great cataclysm which destroyed Atlantis, extended, in our opinion, more to the west, and comprehended the four oceanic groups or Archipelagoes as summits of the prolonged Atlas chain, which are now all that remains of the submerged country; just as Jersey, in the sixth century of our era, remained as a summit when it was detached from the coast of France; just as Guernsey, Alderney, Sark, Jethou, Les Mainquiers, Les Ecrehos, and Chausey remained after the destruction,

at successive periods, of a land which once connected England and France. The English Gaels speak the Breton language and the Bretons speak Gaelic, just as the Canarians speak the Berber language and the Berbers speak the Canarian. This, in our opinion, settles the question.

Let us now give a general sketch of the history of the Atlantid race. Prehistoric Africa was inhabited by a powerful nation belonging to the Atlantid race. It dictated laws to Egypt; and its decadence began as soon as it had attained a degree of power sufficient to engender civilisation. This is an inevitable necessity. The Carthaginians were a branch of this race, who, having repudiated their primitive religion, lost their terror of Neptune, the terror of the sea, and, desirous of succeeding Tyre, adopted its god Melkart, the Tyrian Hercules, and Moloch or Saturn, imported with Astarte from Greece by Dido. The Carthaginians, a branch of the Atlantid race, found in the sea that sceptre which neither art, manufacture, nor science could give them; for this family, still powerful three or four thousand years ago, had made their last effort. Two princes, dukes or menceys, governed in Carthage as in Gran Canaria; three hundred nobles directed public affairs as in Canaria and Teneriffe; religion was under their management. Their marriage customs, worship of nature, wrestling matches, language, were all identical—not that absolute identity which will never be found anywhere, but that scientific identity which comes of analogies, and which suffices intelligent men when, through a lapse of time and space,

they discern striking similarities which cannot be the effect of chance.

Carthage had its day, and succumbed to Rome. Atlantis was by this time only known historically. Two centuries elapsed, during which it contained only pastoral tribes. After a long struggle with the barbarians the most powerful tribes were subdued by the Vandals, Visigoths, and Alani. The Arabs and Turks succeeded them. In spite of the lapse of centuries and all these vicissitudes the Berber race still exists, and occupies the same territory: France has conquered a strip; Tunis reigns over what was Carthage; Morocco occupies the coast; while the Sahara is peopled by Berbers.

Their language, as we said before, is identical with the Guanche language. Not that the Egyptians, Greeks, Vandals, Visigoths, Arabs, and Moors have not in passing left their mark upon it. This must necessarily have been the case; these signs of the passage of one people across the path of another corroborate history; thus the Spanish gutturals will testify to the end of time to the presence of Arabs in the Peninsula. These Berbers have lost their salient angles, but the foundation is indestructible. The Guanches had worn out their language and lost their arts and manufactures, but the foundation remains; and these two branches of one tree, compared together after nine thousand years, recognise each other as brothers springing from a common stock.

Of these Guanches, so energetic and vigorous in the year 1500, only the memory and a few half-breeds remain. This race, once so powerful, is extinct in the Islands; language, poetry, manners, customs, monuments,

religion, all have perished, save a few fragments preserved in books.

Who are to blame for this?

The soldier and the priest.

The soldier was but the obedient tool of the priest, but although his share of responsibility is less, it ought not to be passed over. Béthencourt and his chaplains must be excepted. Their too short reign ended, the work of extermination, already begun, recommenced, and only stopped when it was complete. The Church had always recognised slavery from the first, and afterwards, instead of repudiating, she sanctioned it. During the Middle Ages the Islands were depopulated, and kings and priests engaged in the slave trade; the Order of Christ (a Portuguese order) had a tenth of the money obtained from the sale of Guanches. A prince even, the chief of this Order, raised forces to engage in this white slave trade. The conquered Islands were soon depopulated. Then the clergy invented the negro slave trade. It originated in the fact that forty millions of Indians had perished in America under Spanish cruelty, and that a noble-minded man, Bartolomé de las Casas, seized with pity for these Indians, who were cut in pieces and their flesh given to the dogs and pigs, came to Madrid to implore the King to allow of the importation into America of African negroes. Then the clergy, undisputed masters, ceased to trade in the white men, monopolised everything, and became slothful. They absorbed all wealth and property; four-fifths of the soil belonged to them, and they levied tithes on the rest; they went to sleep and did nothing. The revolution awoke them. The storm over, they went to sleep again; but in 1830 they

could no longer resist the march of progress; they were compelled by superior force to abdicate. But the evil was done; the Guanches were exterminated, and only their memory remained.

After the conquest of the Fortunate Islands, the priest and the soldier, if they had been more intelligent and more upright, might have preserved the race while at the same time enriching themselves. They should have protected and helped the natives, civilised them, and taught them to work; the Phœnicians, Carthaginians, Greeks, and Romans had done so, and had derived considerable wealth from them. They should have allowed them the exercise of their religion, customs, and laws, and learnt from them, by means of their songs, music, and sacred traditions, the secret of their origin and their history.

If the Guanche traditions had been corroborated by the testimony of learned and truthful priests, we might have traced with greater certainty the history of this primitive race. Ignorant, inconsequent, and fanatical as they were, it is from the priests alone that we have received any information on the subject—not very trustworthy, it is true, but we are able to discover some truths even from the very contradictions we meet with. Bory de Saint-Vincent and Berthelot have by turns examined this chaotic heap, in which their successors may still find some useful hints with regard to the history, geography, and customs of the Guanches.

An historian is needed for the African branch—the Touaregs and Amazighis. Only when their history is written shall we have a full and certain knowledge of the secret of Atlantis, which Africa has in her keeping.

Chapter XI.

GENERAL SCIENTIFIC OBSERVATIONS.

We have given in some former chapters the geography of each island of the archipelago in general, and shall now proceed to supplement those remarks by some meteorological observations.

Barometric pressure is not difficult of observation, and we may, without fear of mistakes, fix it at 29 in. Some observers, but on insufficient grounds, fix it at 28·217 in.; these variations are undoubtedly due to the too great elevation of the place of observation, the difference of time, or the imperfection of the instrument. For several years the universal practice of meteorology has obviated the first difficulty by multiplying observations at various heights, and improvements in the instruments have put a stop to the last; and now the two kinds of barometers, aneroids and the mercurial, by checking each other, give such accurate figures as afford only fractional differences.

It is a remarkable fact that, in the various archipelagoes off the west coast of Africa, the barometric pressure is almost absolutely uniform in the same place in all seasons with the exception of times of storm, *levante* or tempest, or rare atmospheric disturbances. Aneroid barometers,

not being subject to expansion by heat like the mercurial barometer, have greatly aided to prove this fact, as important in a therapeutic point of view as it is to medical topography. The action of the wind and hygrometric conditions have but a very trifling effect on the mercurial column; these unimportant variations are not even certain, and cannot be adduced to prove anything. In fact, the hygrometer and barometer may be influenced in directly opposite ways; nevertheless a certain degree of dryness, especially at Santa Cruz, agrees pretty frequently with the height of the barometer.

As regards temperature, we have given some statistics in the chapter on the climate of Teneriffe, and shall not return to the subject. We may remark that European invalids are kept in an artificial temperature, where the air must to some degree be vitiated, and that it would be better, especially in diseases of the respiratory organs, to live in a country where the variations of temperature never exceed 11°, and where the windows in hospitals and invalids' rooms can always be open, even in winter. The chief advantage resulting from this equability of temperature is that the invalid is able to take exercise in the open air, always purer and more invigorating than that of a room even with open windows.

When in sight of Teneriffe travellers sometimes remark that the island is surmounted by a foggy cloud. This phenomenon is nearly always seen by those approaching Madeira, which is frequently invisible. But there is no cause for alarm; these clouds have no influence on the climate of either Teneriffe or Madeira; it is but too seldom

that they produce rain in winter or spring. In the towns and on the mountains, up to a height of 3,000 or 4,000 feet, the sky is generally perfectly clear while clouds are overhead. These white and almost transparent clouds allow the highest peaks to appear, and only cover the intermediate heights of the Sierras.

Nearly all the mornings are clear and the nights magnificent. The sea is then covered with dull white vapour, which seems perfectly stationary. After sunrise this vapour rises, the wind sends it towards the Islands, the mountains attract it, and it tempers the heat; in the evening rarefaction takes place, and at night all is clear. When the clouds are carried in a certain direction by certain winds, in a particular state of the atmosphere, the lunar rainbow may be seen; the solar rainbow is more common, and often marvellously beautiful, especially at Madeira, where the atmosphere is not so dry.

If the clouds, at the approach of winter or spring, become opaque and dense, from being strongly condensed, and if the south-west wind blows, the clouds dilate, from the calorific influence of the wind, and come down in deluges of rain. These rains are the greatest blessing to the Islands; they last but a short time, and only take place on not more than between forty-five and sixty-three days in the year; in the intervals the streets and roads are quite dry, and become passable immediately.

These various atmospheric movements, under the influence of regular causes—trade-winds, mountains, sun, and sea—take place at fixed hours and days, with such

perfect regularity that the weather may be predicted with almost unfailing accuracy.

The islands nearest Africa—Lanzarote and Fuerteventura—are less cloudy, having no high peaks to attract the wandering vapours; the sky there is clearer and the heat more intense. During the dry season, summer and winter, the western islands, although wooded and standing high, enjoy a series of cloudless days, when the mountains are so clear, and the atmosphere so transparent, that distant objects appear close at hand, so as almost to deceive one, especially in the morning on the mountains.

The amount of rain in the Islands is shown by the rain-gauge to be 30·021 in.; according to some 28·107 in. The average would thus be about 29 inches. Rain almost always comes with a south-west wind, less frequently with a west wind, with other winds hardly ever. Even when it comes down in torrents it is nine times out of ten confined to a small surface, and the sun shines while it is falling.

Storms are rare; hurricanes are still more rare, and have never produced the deplorable devastations to which the West Indian Islands are subject. Earthquakes are uncommon, and their oscillations, impossible to calculate from their insignificance, are merely movements of *consensus* appearing at long intervals.

One of the principal causes of the mild climate of the Islands, and also of the easy accessibility of the Canarian seas, is that the ebb and flow of the sea are but little felt there. The ancients attributed the elevation and depression of the ocean to the wrath of the gods. The first

men whose history is preserved to us, inhabiting the shores of the land-locked Mediterranean, Red, Caspian, and Black Seas, had a horror of the ocean, always agitated by celestial ire. But when the science of astronomy became generally known through the Egyptians and Chaldeans, the ancients soon ascribed the tides in the Persian Gulf to lunar influence. Aristotle and Pliny verify this. In mid-ocean—in the Atlantic for example—the tides are very low. Romme calculated that they would not exceed three feet round islands which, by their shape and isolation, would not in any way interfere with the motion of the waves. It has been remarked that the strongest tides are found at the bottoms of gulfs, because the water flows there more rapidly and with accelerated force; therefore at the Canaries, in the open sea and opposite a straight outline of coast, the tides would not rise higher than in the middle of the Atlantic, fifteen feet at the most at the spring tides. The average height of the tide in the Canary archipelago is from seven to nine feet.

Ships coming from Europe and bound for the Cape of Good Hope generally stand out to sea and avoid Madeira, the Salvages, and the Canaries, passing to westward of them. Ships bound for the coast of Africa avoid the coast, and only approach it when opposite their destination. Although far more favourable to navigation than it was 500 years ago, the African channel is still difficult to navigate, on account of the uncertain winds, varying between south-east and south-west. Formerly it was impossible to anchor there, according to Pliny, Ptolemy, and Callimachus; the ancient country of Atlantis could

be seen in calm weather beneath the waves, but it had sunk considerably some centuries ago, and is still sinking by degrees.

Ships bound for the Islands ought to go to the westward of Madeira and the Salvages, and then steer for the lighthouse on Point Anaga, which is newly built and of the first order. Navigators must take account of a deviation to the east, which will tend to carry them in the direction of Lanzarote. The trade-winds are favourable to sailing ships, and an always clear sky will allow of the necessary calculations being made between Madeira and the Canaries to enable them to avoid the Pitons, the Grand Salvage, and such rocks as are dangerous in navigating by night.

Ships bound to the southward from the Canaries are often overtaken by the island calms. These calms result from the high mountains obstructing the trade-winds; they extend over a surface of from eight to ten leagues from Teneriffe, fifteen from Gomera, and a little more from Palma. When you are beyond these calms the sea rises, and you encounter a heavy swell; the line of calms may be distinctly traced.

The beautiful skies in these latitudes will charm the traveller. The transparency of the atmosphere, the intense blue of the heavens, and the brilliance of the stars are beyond all comparison; shooting stars are so constantly seen that the sky is perpetually streaked with them.

In the Azores and the Cape Verd Islands, especially Fogo, the surf is something terrible. It is very different

in the Canaries; there the surf never hinders navigation on the coast, unless it be during the *levante*, and even then the strong south wind, blowing with sustained equal force, never produces those liquid walls, many yards higher than the level of the sea, which crush ships or dash them on the rocks. The tornadoes of the China seas and the shoals in other seas are here unknown; rough weather is unusual, in spite of the Gulf Stream—the Storm King!

There is a stream in the midst of the ocean; it never dries up, nor does it ever overflow its boundaries. Its shores and its bed are currents of cold water, between which flow warm blue waters—the Gulf Stream. Nowhere else in the world is there such a majestic current; it is swifter than the Amazon, more impetuous than the Mississippi, and the whole body of these two streams does not represent the thousandth part of the volume of water it displaces. Maury, perhaps the greatest citizen of that America which amazes Europe and affords her the most majestic spectacles—Maury has traced a chart of this current, which plays such an important part in the economy of the Atlantic Ocean, and thanks to which England and Ireland are not buried in snow and ice, nor the western coasts of France exposed to a climate like that of Russia.

This current of warm water is due to the influence of the trade-winds; these winds, whose movement is retarded by the resistance offered them by the waves, lose their force, and finally give an impulse to the waves. This current has its origin below the equator in the Gulf

of Mexico, and goes towards the West Indies from east to west; having reached the shores of North America, at a mean velocity of two leagues an hour, it divides into two branches, one of which goes northward to warm Ireland and Norway, while the second, bending to the westward, goes below the Azores, touches Madeira, the Canaries, and the Cape Verd Islands, and returns to the equator. Setting aside the branch which goes towards the Frozen Ocean, and occupying ourselves only with that which bathes the islands of the Atlantic, we shall observe that it traces an enormous ellipse in the ocean, of which the two extremities extend to the Canaries and the West Indies; this vast circuit includes the Sargasso Sea, that immense district covered with a kind of seaweed called *fucus natans*, which Columbus designated as 'the prairie of the sea,' and which alarmed his crews throughout the whole of their voyage from Gomera to New Spain; the imagination of Columbus was greatly struck by it. It takes three years for the waters of the stream to make the circuit of this district, which affords an asylum to a marvellous number of molluscs, crustacea, and plants, dead and alive.

The current carries along with it everything that falls into it; and to this cause we must attribute the happy chance which showed Columbus at Gomera strange plants, seeds, and tools, and even American corpses, which were to him so many clear signs of an inhabited world, which he had already guessed at from other indications. The trees especially were subjects of the greatest astonishment and speculation to him. The Mississippi

alone brings down every day millions of cubic yards of wood into the Gulf Stream, which carries them along with it on its course. It throws on the shores of Iceland wood enough to supply the wants of the population.

This great current, the Storm King as it has been called, which ravages the West Indies, creates cyclones and hurricanes, stirs up the ocean, destroys towns, and sweeps bare the fields by means of the winds which it sets free or bears along—this current, tamed down, only brings blessings to the Canaries; its warm waters are the cause of the evenness of temperature which make them so delightful.

We must add a few words to what we said before about the *levante*, which ought to be called by its desert name, *harmattan*. It blows twice or thrice a year, from three to seven days at a time. The inhabitants of the mountains call it 'the wind from below;' the townspeople, 'the south wind;' it is called *levante* along the African coast, *sirocco* in Italy and on the Mediterranean; *simoom* in Arabia; and *harmattan* in Senegal. It blows from the S.S.E. It blows but seldom, and almost always in winter, happily, for in summer it is intolerable. The thermometer goes up to 85°. It is said to have once stood at 90°—the temperature of a hot bath! The effect on the nervous system is worse than the heat itself. The skin grows dry, a feeling of oppression is experienced, the furniture cracks, and the covers of books shrivel up, as if exposed to the heat of a fire. While this wind lasts one suffers from headache, inertia, loss of appetite, and some persons in weak health are apt to faint; those in

good health are only inconvenienced by the suffocating heat. The only remedy is to shut oneself up hermetically.

The *levante* is followed by rain.

In these Islands there is an alternate prevalence of land and sea winds, notwithstanding the general sameness of direction of the wind out at sea, beyond the influence of the capes, gulfs, and Cordilleras; these local winds succeed each other at regular hours, and greatly contribute to the evenness of the temperature, the softness of the air, and the public health. In the daytime, under the influence of the sun, the wind comes from the sea, refreshes the atmosphere, and keeps up a moderate warmth; between four and five the wind rises and blows from the land, carrying off to the sea the emanations from heated surfaces and the miasmas from the towns. In winter these winds are less regular than in summer. In short, throughout the year the Islands (with the exception of Fuerteventura and Lanzarote, which are more African than the other five) enjoy a most delicious climate; the trees never lose their leaves, nor the vegetation its vigour and verdure, nor the flowers their perfume.

'The climate which contributes the most to the growth and perfection of everything is that where no one thing predominates, where all are in perfect equilibrium.' This condition of the excellence of a country, pointed out by the ancients, is confirmed by modern experience. It is also one of the causes of the excellence of the flora. Too great a division of vegetable and animal species into genera and families produces a kind of monotony; vege-

tation presents a far more varied aspect when a large number of genera are represented only by one or two varieties; the abundant vegetation then affords the eye a contrast of forms and colours such as could never be produced by a great number of congenerous species. The proportion between species and genera is therefore very important, in considering the vegetation of a country. We may form an idea of the characters of different flora, by the comparison of their numerical quantities; thus, while in France, for instance, the number of species in each genus averages seven and a third, in the Islands it only averages one and a half. It is true we must not push this too far, for in districts which are undergoing an epoch of transition, the number of *leguminosæ*, *cruciferæ*, and *compositæ* in the Canaries cannot serve as a guide in calculating the number of glumaceous plants, and *vice versâ*. These families compose in the temperate zones more than a fourth part of the phænogamous plants, while they only constitute a tenth in the Canaries. The isolated situation of the mountains surrounded by the sea, in some parts the influence of the African continent, arid, scorched, and bare of vegetation, the proximity of the tropics, the clouds which the mountains attract, the maritime atmosphere, and the burning winds of the desert,—all tend to place the Canarian flora under peculiar conditions, which suiting all families, allow only a few congeners to develope, and do not even suit all of them. It often happens also, that congenerous species differ from each other, and that the same families are represented by different genera, and to this fact we must

attribute that character of strangeness which the most familiar vegetation presents, under forms entirely unexpected and singular. The varieties which exist in the orography of the Islands, by multiplying the accidents of soil, aspect, and temperature, have multiplied contrasts without end, by diversifying phytology. From this fact result distinct floras and species confined to particular localities; and the mass of plants in each island, although composed of species common to all parts of the Archipelago, never appear under identical conditions.

It is a noteworthy fact that grafting was unknown among the Guanches. The natural fruits produced by virgin trees were excellent, and even now are not improved by grafting. Many varieties have indeed been introduced in this way, but all those species peculiar to the Islands are so delicious that no gardener ever dreams of grafting a wild stock; this fact, although now notorious, was unknown to those who formerly pretended that fruits in their natural state never possessed such flavour and aroma as they do now, and that cultivating and grafting alone could supply those qualities. This doctrine may be true as regards certain species imported into foreign countries, but does not apply to all indigenous species remaining in their native country.

The aboriginal species found in the Canaries belong, for the most part, to the genera of the Mediterranean, but they are more vigorous, the ligneous part is always more developed, and the plant often becomes arborescent: certain species assume other forms there; and many are monotypes of genera, to which there are no others

analogous, as the Visnea, Phyllis, Bosea, Plocama, Canarina, &c. Some plants assume a remarkable form and aspect, as the house-leek (*semper vivum*), bystropogon, echium, &c.

Among the various plants which compose the Canarian flora, some assume an entirely African character; for instance, the large euphorbia, palms, zygophyllaceæ, aizoons, and kleinias: a few others are essentially American in form and character, as the laurels, ardisiers, boehmeria, drusa, and several ferns. Thus, the Canarian flora, Mediterranean in its prevailing character, gives hints of an American character, partakes strongly of the African character, and seems to form a link between the temperate climates and the torrid climate of the tropics. These islands in the Atlantic form a bridge between the two worlds: from their proximity to the tropics, their climate is one of the most favourable to vegetation; it partakes at once of the fierce vigour of the torrid zone, and the mild warmth of the temperate zone, while at the same time in the high lands it possesses the quiet vegetation of Alpine regions. The sun combines with the sea and the most active principles of the composition of soil to produce a magnificent vegetation; the volcanoes, which might be supposed to produce sterility, have, on the contrary, developed new conditions of productive activity: finally, the ambient air, favourable to all cultivation, has allowed the plants of both hemispheres to become naturalised there. The Archipelago has therefore a strong claim to the title it bears, and always will bear—The botanical region.

On his first arrival in the Canaries, the traveller is

informed with a certain pride, that noxious animals do not exist there. This is not to be wondered at: in such small islands, man could not have survived without destroying the noxious animals, if there were any; it was easy to do so, for there is no refuge for them, and once destroyed, they cannot return. All islands possess this advantage. We may however mention the doubtful existence of a few vipers.

Among carnivorous animals, we find the dog and the cat; among rodents, the rat and the rabbit; among pachydermata, the pig and the horse; among ruminants, the goat, the sheep, the ox, the camel, and the dromedary; among cheiroptera, the bat, the pipistrel, and barbastrel; among annelides, the *nephelis vulgaris*, and a peculiar kind of leech, which is used in medicine, when Spanish leeches cannot be procured. All animals imported from Europe are domesticated in the Islands; we need, therefore, say nothing on that head. Animal species develope admirably in the Islands under certain conditions; but as their domestication is not carried on in general in suitable localities, nor with the intelligent care of northern races, their development is less than in Europe, and the races are inclined to dwindle and die out.

Ornithology is poor. The scantiness of catalogue is such that it has been made a matter of reproach to M. Berthelot, who has lived for forty years in the Islands, has devoted himself for a long while to the study of ornithology, and can affirm that not a single stationary species has escaped his observation. No doubt we might

add to this catalogue the names of a few occasional birds of passage, very few when compared with the habitual birds of passage, and nothing to the stationary species.

This ornithological penury of the Canary Islands is owing, in the first place, to the proximity of the African desert, and the relative sterility of the islands off the African coast; secondly, to their distance from other countries; and the drought in summer is sometimes such as to wither the plants on which some birds live.

Canarian ornithology possesses, however, five new species, at least they are considered so, and of these five species two at most find suitable food in the Islands: the *columba laurivora*, which lives in the laurel and mocan groves, and the *fringilla teydea*, which lives in the elevated regions covered with *sparto cytisus nubigenus*, of which it eats the seeds: the other three species are *procellaria columbina*, *fringilla canaria*, and *fringilla tintillou*.

We cannot pass over the canary, whose song Bory de Saint-Vincent compares (most erroneously in our opinion), to the nightingale's. Monte Clara, a small uninhabited island, near Lanzarote, formerly possessed the most melodious canaries. The chief merits of this bird in our opinion are, that it is very easily domesticated, will live in any climate, and has an extraordinary memory for sounds. It is a mistake to suppose that wild canaries are as yellow as those bred in Europe; the hen is often quite brown, and the cock covered with green and brown feathers alternately, the effect of which over dull yellow is not remarkably pretty.

Mr. Anderson, the naturalist of Cook's Expedition, says, that he saw parrots in the Canary Islands; they were most probably in cages.

Lizards abound in the Islands, especially the grey lizard; their rapidity of motion is astonishing, and some varieties have some interesting peculiarities of skin. The green frog and tree frog are not common, and you never hear in the Islands the disagreeable croaking of frogs in marshes and ditches.

We have had no opportunity of seeing any specimens of the fish of the Canarian seas, and have been obliged to content ourselves with drawings. After discussing ichthyology with the learned M. Berthelot, who has the love for fish of an ardent fisherman, we have come to the conclusion that the insular ichthyology is most important as regards the deep sea fisheries; the abundance of fish is such that the fishing fleet might be doubled without perceptibly diminishing it. The channel which separates the Islands from Africa is frequented by numerous migratory fish.

The most remarkable characteristic of Canarian ichthyology is that, like the flora, and even in a greater degree, it appears to resemble more the marine population of the east coasts of America than those of the Mediterranean or African coasts. We leave this fact for wiser heads to interpret. If it concerned only migratory fish, we could understand it: but it concerns sedentary fish; for instance, the American *priacanthes*, *beryx*, *pimeleptera*; large *carongues* and *scombers* are found in the Canarian seas, and the similarity of several species is most

remarkable. The *pimelepterus incisor* is, above all, remarkable, for the identity is complete.

It is from Canarian ichthyology that we have learnt the homes or countries of certain species, the *beryx decadactylus*, for example, and it is to M. Berthelot that we owe the discovery.

Canarian conchology does not offer many varieties: it is not distinguished by anything interesting or remarkable. We must however add, that this branch of natural science has been but little studied, and for this reason: the tides are low, and as the ebb is therefore low also, the explorer does not find a sufficient extent of coast laid bare; besides this, the rocks do not emerge much, and as the outermost buttresses of the Islands rise perpendicularly from the sea, the sea is exceedingly deep close to land, so that the field of investigation is extremely limited.

We think it unnecessary to enter on the subject of mineralogy, because it is unimportant in comparison with geology, of which it is but a branch. When we think that from the very earliest times Atlantis has played an important part in the history of mankind; when we think of all the great men who have successively studied this question—we can easily understand that it is not worth while to speak of the minerals in the Islands, when an examination of the distribution of the rocks of which this part of the globe is composed, and the share they have had in the formation of its various strata, may serve as a basis on which to found an opinion on the period of the formation of the country of Atlantis, and may perhaps

clear up one side of the question which still divides the scientific world.

The foundation of the country was the first formed solid body; granite, which consists chiefly of quartz and mica, blended together by felspar. Next to granite come schist (or slate), chalk, and clay; all these belong to the primary formation. Land appeared at the earliest period between Wales and Finisterre, forming British and French Armorica; the upheaval of the primary system brought into sight Mayenne, the Limousin, the Asturian mountains, the Pyrenees, part of Portugal, the Atlas chain, and the Atlantic islands. Let it be granted that the Atlas mountains and Atlantis, whether continent or islands, did not emerge before the Devonian period. This is doubtful. We believe that they belonged to the primary formation, or the period of transition, for we have found such rocks in the Islands, which have been scientifically examined, and do not admit of a doubt.

These portions of the land being formed, they gradually cooled on the surface and parts adjoining, and through this successive cooling they became crystallised and solidified. A crust once made, the outer shell, by virtue of the law which decrees that all bodies passing from a liquid to a solid state shall diminish in bulk, became larger than was necessary; it then formed on the solid envelope of the globe wrinkles, elevations, and depressions. Such is the origin of most mountain chains and valleys. Then the solid crust of the globe, being thus wrinkled and in folds, possessed less power of resistance at certain points, and at those points the liquid

mass of internal fire burst forth, and through these orifices the first volcanoes made their way. These volcanoes threw out on the rocks which surrounded them liquid substances at a high temperature; these in cooling became in their turn solidified, and thus volcanic mountains were formed. Such was the origin of the country of Atlantis, a country of primary or secondary formation, or else transitional.

Afterwards strata of a later formation, sedimentary and eruptive, were superimposed; but, by reason of eruptions of lava, trachyte, basalt, and granite ejected by later volcanoes, these strata were broken and twisted, and formed a kind of chaos about which geologists differ in opinion. The submerged land which was the foundation of the Islands having disappeared from the effect of a deluge important enough to cover half Africa, as may be easily proved in the Sahara, it is difficult to decide the question; but this fragmentary character may be explained by the volcanic nature of the country and the torrents of basalt and lava. In that case, Atlantis, a country of primary formation, becomes a legitimate object of belief. On the other hand, forces like those which have hollowed out such abysses as those of the Caldera in Palma, las Cañadas in Teneriffe, and Freiras in Madeira, must have been stupendous, and capable of producing vast extents of country; but when we find calcareous and sedimentary rocks upheaved by this plutonic action, they are certain indications of a formation anterior to that same action, and these facts sanction and even necessitate the existence of Atlantis.

Volcanic mountains in the earliest ages were of the most varied forms, while the later ones are always conical. The Island volcanoes are all of the latter kind; we can discern the conical form in all of them. They are, no doubt, posterior to the formation which serves as their foundation.

It would be rash to attempt to fix the date of the deluge which destroyed Atlantis, but it must have been prior to the Noachian deluge.

Travellers are astonished at the depth of the *barrancos* or fissures in the rocks, and at the force of some of the torrents; one in Palma, for example, has made a passage through a mountain of granitic basalt, forming a ravine nearly seven hundred feet deep. It is surprising that no one has discovered the identity of these *barrancos* with those of the Atlas mountains, and in some points with those of the Spanish and Mexican mountain chains. People have persisted in attributing them exclusively to the action of the water, and have taken the trouble to calculate the time it must have taken to hollow them out. In Madeira, a stream which has a volume of sixty or seventy gallons a minute, runs through a ravine 1,400 or 1,500 feet deep, and it has been calculated that it must have taken 21,000 years to produce it. We do not understand the basis of this calculation; it has never been made public, but is a simple assertion without any proof. It is by no means necessary to account by such very dubious calculations for the formation of these gorges. There is no reason why they should not be ascribed to earthquakes, or to the effect of the cooling of the basaltic

strata. Bory de Saint-Vincent and Guilbert were of this opinion, and their opinion carries great weight. Besides, the action of the torrents might have begun at a depth of five hundred feet, far above the bottom of the actual gorge; how can you prove the contrary?

It has been maintained that these torrents were more important formerly; no doubt they were, but the difference could not have been very great, for these gorges are so narrow at a great depth that the torrents could never have carried much more water to the sea than they do at present.

This question of *barrancos* is one of those phenomena which people will persist in thinking inexplicable. And yet nothing can be more simple; those geologists who will not admit the cooling of strata to be a sufficient cause for these fissures will, we hope, accept a theory evolved from their own maxims: that the Island *barrancos* may have been formed by the action of elastic fluids which formed the Islands, and, as they say, moved the strata which composed them from a horizontal to a slanting, and often vertical position. In one of Dr. Daubeny's works we read: 'If we suppose a solid non-elastic stratum rising suddenly, it will result that the action of fluids will form there crater-shaped openings, causing a number of fissures similar to *barrancos*.' All this is admissible; and the action of water not being so probable, why should we invoke it exclusively?

It has also been maintained that these *barrancos* were craters which have been extinct for thousands of centuries. We think this would be difficult to prove from the ex-

amination of those in the Canaries, which are in no respect similar to the extinct craters or to those still in action, even when, as in the Caldera in Palma, the wall of the crater has been broken through by the action of spring or rain water. The volcanoes still in action, instead of appearing likely to form *barrancos*, assume, while diminishing in intensity, a course exactly similar to that of the changes in the great chain of the Andes; the formation of *montañetas* of eruption, cones of scoriæ with or without orifices, and eruptions of mud. This is the case in Madeira and in the Cape Verde Islands, as well as in Teneriffe.

It is more than probable that, before finally becoming extinct, the immense circle of the Cañadas which contains the cones of Teyde, Chahorra, and Montañablanca, will again be in eruption. It may some day be possible to calculate the time of volcanic eruptions, and even now we may venture to affirm that these volcanoes will soon become extinct, and that the Cape Verde Islands will have for some time the monopoly of Atlantic eruptions. It remains to be seen whether this period of repose will not prepare the way for a period of fresh upheavals and convulsions, in connection with each other, and whether the numerous fractures produced in that case on the weaker parts of the earth's crust, will not entail the formation of fresh mountain chains, and the sinking of portions of the land, thus changing the distribution of land and sea.

On the top of the Cañadas, within the old crater, which is so large that it has but one rival in the world, that of the Mouna Roa in Hawaii, we find rocks similar to those generally found at the bottoms of craters. It has been

asserted that the Peak of Teyde has accumulated these rocks by successive eruptions, but this explanation is not satisfactory. These rocks, and even whole strata similar to those found at the base of volcanoes, are in the Peak of Teneriffe on the opposite slope to that on which volcanic matter has been thrown out, and we find no traces of lava near them. Some have thought, and we also think, that the crater of the Cañadas has been re-opened several times, even before the upheaval of Teyde; and in that case these rocks may be attributed to one of the early eruptions which the present volcano has covered over either wholly or in part. The most probable explanation is that which has been put forward with regard to the Caldera in Palma and Freiras in Madeira—a falling in of the principal crater. This phenomenon has been studied elsewhere, and we find that there are two kinds of craters—those which break out from fissures and those of elevation. In either case it is easy to understand that the soil which now forms the circle of the Cañadas and has stopped up the orifice of the great primitive volcano has been re-opened, and that by means of this orifice a new volcano has forced its way through the old one. It is to this that the Peak of Teyde owes its singularity. An immense crater, that of las Cañadas, having fallen in, a fresh volcano, the Peak of Teyde, has risen up in its centre; the base of this latter is the base of forty-two miles of circumference of the former crater. And thus the rocks found at the base of the Peak on the opposite side to that on which its ejections are thrown out belong, not to Teyde, but to the ancient crater.

The question of volcanoes is not, in our opinion, the most important: although highly interesting, it must give way to the question of formation, and this problem may be presented under different forms. Did Atlantis exist before the time of the present volcanoes? Or was it formed at the same period? Did it owe its existence, its appearance above the waves, first to primary formations, and next to later volcanic forces? Geology appears to prove an affirmative: it admits that the African Atlas chain may have joined the Canarian Atlas; that volcanoes and regular upheavals, similar to those which produced the Armorican triangle, the Scandinavian mountains, the Pyrenees, and the African Atlas chain, may also have formed the country of Atlantis. Then, as the volcanoes continued their work, the great diluvian cataclysms ensued, and submerged the land, so that only the summits remained above the waters. This assertion is of course controvertible, for every assertion can and ought to be made a subject of discussion, but it appears so probable, and everything agrees so well in confirming it, that we imagine few geological facts rest upon such sure foundations; however, as our opinion is of little value (if indeed it possess any), it must be left to the men of science to decide the question.

Geology is beyond dispute a modern science, which by its rapid development permits us to ascertain facts of which tradition had conveyed some idea to a few great minds of antiquity. To believe that Atlantis never existed as a great country would be not only to commit an act of impiety towards the great Plato, whom his contemporaries

called 'the divine,' and to show contempt for the testimony of all antiquity, but it would also compel us to admit that the Azores, Madeiras, Canaries, and Cape Verde Islands, are the product of volcanoes relatively modern, within pre-historic limits; and such an admission is inconsistent with their form, their geological constitution, and the nature of their soil, rocks, and even vegetation: in a word, with all the assertions of science, which can never consent to see in these islands formations by eruptive upheavals, like the islands of Santorini and Julia.

Chapter XII.

CIVIL AND MILITARY GOVERNMENT, JURISDICTION. DIFFERENT GOVERNMENTS.

The Canary Islands were governed by the conqueror Béthencourt and his successor Maciot as kings of the Canaries and vassals of the Crown of Spain. The kingdom came to the end of its brief life under Maciot, and his successors were styled Governors of the Islands already conquered and of those which afterwards became so: although holding directly from the Crown, they enjoyed a certain independence. These privileges resulted from the self-government recognised in the Islands from the time of Béthencourt's reign. To this self-government was presently added a fresh element of separation, introduced by the Adelantados, who, in governing the Islands, rarely made the laws and ordinances identical with those of the mother-country. From this separating system resulted a marked degree of independence. And, finally, the royal decrees could only become law in the Canaries by the effect of the royal will, specially declared in the decree itself.

At first, the four first conquered Islands were governed solely by the Norman laws introduced by Béthencourt,

but the governors who succeeded Maciot introduced changes and abuses, and before long a despotism far more oppressive to the inhabitants than if they had been governed directly by the mother-country. The governors, looking on the Canaries either as a conquered country or as a place of banishment, carried on frightful extortions, and lived in a state of calamitous indifference to the real wants of the country. The assimilation of the Archipelago to a Continental province, although long and greatly desired, was only carried out under Charles III. [1759–1788]. This assimilation would have remedied many evils, but it came too late; for after Charles III.'s time the Spanish monarchy entered on a period of change and misfortune which has been perpetuated by wars and revolutions. The mother-country neglected the Archipelago, and the good results which the Islanders had a right to expect from the assimilation were far from being realised. However, the state of the Islands during the last century was happier than that of the provinces and other colonies of Spain. Distance, and the mildness of the insular character, tempered and diminished the evils.

In order to put a stop to the individual despotism of the governors, civil and military, Charles III. decreed the union of the Islands with the Crown; as 'a province of *terra firma*, Captaincy-General, civil province of the third class, judicial district with law courts, a maritime province united with the department of Cadiz, and suffragan diocese of the Archbishopric of Seville.' Consequently, the province of the Canaries is ruled by a civil governor residing at Santa Cruz de Teneriffe, and a sub-governor

residing at Las Palmas, in Gran Canaria. They nominate the *alcaldes* [mayors], (the Crown reserving to itself the right of sanctioning their nomination), and superintend public education, the public works, police, civil government, taxes, provincial and municipal administration, the public health, hospitals, &c. In order to save appearances, since the monarchy became constitutional, twelve members, elected by a limited suffrage, form a Provincial Council, with very limited powers, to assist the civil governor; Teneriffe sends five members, Palma two, Lanzarote and Fuerteventura one each, and Gran Canaria three.

Above these is a Council of State—*the* Council; it is always composed of three members, two of whom are lawyers. If the power of the Provincial Council is limited, this has none whatever; its members are listened to as a matter of form, but their advice is only taken when it happens to agree with the opinion of the governor.

A police commissioner and his agents are under the control of the civil government.

This system of government appears simple enough; but it is only worked by means of a general secretary, and heads of all the various departments, each of whom has under his orders more than enough clerks belonging to the departments of the province, the state, the taxes, the police, the roads, the public health, public order, &c. In a word, it is a complete government, with as many ministers as if it were a separate kingdom.

The military government is more complicated: first of all, there is the Captain-General, who is the military head of the whole province, and governs by means of two

lieutenants, one in Teneriffe, the other in Gran Canaria. These lieutenants are generals of brigade, and are called *segundo cabo*.

These officers command a detachment of two companies of artillery, intended solely for the defence of the Islands, and only consisting of 180 or 200 men at the most. These are all the Spanish troops in the Archipelago, but there is also an Island Militia, which we shall describe presently. The system of defence comprehends—a battery, with casemates armed with rifled cannon; Fort San Felipe, also armed with rifled cannon; the old castle, a mere absurdity from a military point of view; a park of artillery in good order, and a few other insignificant defences. In the other six Islands there is nothing worth describing. This system of defence, small as it is (although in our opinion more than sufficient), serves as a pretext for the presence of a body of engineer officers, commanded by a general. The reader now knows the military positions and the number of the army—two hundred men; he shall now have a list of the officers who command it; it is absurd and incredible, but it is true.

The Captain-General of the Islands is also a general of artillery, and as such has under his orders a general and a colonel in command of the park of artillery; and besides these, an adjutant, a major, and other officials belonging to the fortress, just as if he were at Metz, Kronstadt, or Gibraltar.

The Captain-General has, as we have said, two lieutenants who are generals; he has also a staff and aides-de-camp. Nor are these all. The clerks of these officers

have their own offices; and as some of the officers have work to do, real or imaginary, they have other clerks to do that work; all these officials live in the Captain-General's palace.

Add to these a general of marines, a military judge, a paymaster, an artillery judge, a naval judge, three military surgeons, twenty military governors; these, with fifteen staff officers, make up the respectable total of fifty superior officers to 150 or 200 men, covered with gold lace at every seam. Spain pays them and gives them every imaginable Order; they are proud, like all useless people, and finding themselves out of place and in a kind of exile, they look on the Islanders as barbarians, and sigh after their mother-country, where they might have the opportunity of intriguing for their promotion, for another cross, for a better appointment, or for being put on half-pay and keeping their appointment at the same time.

People such as these require privileges, and they have them in abundance. Military men cannot be judged by civil tribunals, even in civil causes. This anti-common-sense idea being admitted, a military judge has been appointed to judge these warriors. But sailors will not be treated like soldiers; therefore, as there might be a naval station in the Canaries, (although there is not), there is a naval judge, who has no sailors to judge; but there may be some, some time, so the judge is there, with a good salary. But the artillery is a special branch of the service, not to be confounded with the general army, so there is a judge for the artillery, &c., &c.

However, if we could understand the use of fifty superior officers, it is far harder to account for the seventeen military governors. What do they govern? Little or nothing except—appointments.

Recruiting in the Islands is carried on after a paternal fashion. The Canary Islands require for their navy 4,616 sailors, but they have only sixteen; for the army they ought to have 5,515 soldiers who form the insular militia, of which 1,100 only are enrolled; 800 in the infantry, 300 in the artillery. Between two and three hundred are on active service, which service does not amount to much. When any royal troops are in Teneriffe, the militia is dispensed from serving; when there are none, one battalion is kept on active service for three months at a time, during which time the officers and soldiers are paid by the Crown. Two hundred and eighty men, about a fourth of the whole number, are called out at a time. In time of war the mother-country has the right of mobilising the militia, otherwise they never leave Canarian territory. All the subaltern officers are Islanders, but the battalion is commanded by officers of the royal army. In case of possible mobilisation, the 1,130 men who are called out annually are divided into battalions and companies, the cadres of which are capable of receiving the 5,515 of which the militia nominally consists; these battalions and companies are commanded by three colonels, six lieutenant-colonels, ten commandants, two captains, eleven lieutenants, and two adjutants. These are cadres of officers always eligible in case of the mobilisation of the militia, and paid by Government.

The traveller who sees these men on parade, called out for three months at a time, once in three years, will be astonished at their soldier-like air, good carriage, and strong, active appearance. Any one would take them for picked Spanish troops.

This militia is an old Norman institution, excellent in every way, and its working is most satisfactory. We find it just the same in the Anglo-Norman Channel Islands.

The judicial organisation is as follows: Teneriffe has three judges, Gran Canaria two, Palma one, Lanzarote and Fuerteventura one. The Teneriffe judge takes cognisance of the lawsuits in Hierro and Gomera.

The Court of Appeal [*audiencia*] sits in Gran Canaria; it is divided into two chambers.

The Supreme Tribunal sits in Madrid.

By a strange anomaly, foreigners are tried before the military judge.

The Islands possess two Chambers of Commerce, one in Teneriffe, the other in Gran Canaria.

The judges are elected, the Crown making a selection from the list of candidates named by the electors.

All the other law officers are nominated by the Crown and paid by the State.

The judicial administration is far simpler than the military administration, from which we may safely conclude that the old proverb *cedant arma togæ* is not followed out here; in fact, the idea of justice is in Spain quite a subordinate one. Might is always right there, and there is no might except by permission of the generals, who make and unmake governments. Prætorians rule,

and it is notorious that neither armies nor generals have much respect for justice. Not only that, but they cannot comprehend it, which is their sole excuse. What is most deplorable in a country under military rule is not the absence of liberty—for one can live without that—but the absence of justice.

In spite of what we have just said, which is strictly true as regards Spain, we are glad to admit that in the Canary Islands the administration of justice enjoys a reputation which, though not what it should be, forbids us to liken it to justice in Spain; yet all the judges are Spaniards! This is due to the softening influence of the climate, before referred to, and to the independence which distance from the capital produces. Justice in the Canaries is almost uninfluenced by politics, and is therefore far more impartial than in the mother-country. We believe that justice is administered in the Canaries by men subject to error as elsewhere, but with more uprightness, independence, and impartiality than in Spain, especially than in Madrid.

Ecclesiastical government in the Canaries is entirely independent of the civil government, and is under the jurisdiction of the diocese of Seville. There are two bishops; one residing in Gran Canaria, the other at Laguna. There is a special ecclesiastical tribunal for priests. The clergy are paid by the State.

The municipal administration is elective, the alcalde only being appointed by the Crown.

Taxes are levied both on real and personal property.

All administrative power is in the hands of the State;

the clergy alone are independent. Even the local police is in the hands of the State. The Islanders forget that it is on the police that despotic governments depend, and that of all the vexations to which they have been subjected, those of which the police have been the instruments have been the most iniquitous. Let them consider Champfort's words: 'The police system must be something frightfully bad, since the English prefer robbers and assassins, and the Turks the plague!' From which we must logically conclude that there is but one honourable, good, and legitimate system of police—that carried out by the people themselves gratuitously.

The army is nearly its own master, almost independent of the State, and totally independent of the civil government. But it has not much influence in the Canaries, for the officers have no soldiers, and they do not exercise their power more despotically than the clergy—less so, perhaps, for the clergy are really more powerful.

Spain is legally a constitutional country, but in reality she is governed despotically by three powers, which devour the nation; the priest, the king, and the soldier. It is the very ideal of bad government, and the revolution by which it will be overturned is openly preparing. In the Canaries it is spoken of everywhere—in casinos, cafés, and hotels, even in the streets, and before the government agents. Whatever may be in store for the future, we wish for the Spaniards an honest government which will give them education and liberty—two blessings which bring all others with them; but, above all, we desire one thing, without which nothing can be done—we allude to

a radical measure against the system of salaried officials. A nation can only prosper when its youth work and are productive. A nation whose youth are always looking forward to appointments by favour, or the retirement or death of others, and are ready to get up a revolution for the sake of obtaining office, is advancing to its ruin with gigantic strides. This plague spot is the plague spot of the Latin races, who have delegated individual power to central authority, and receive salaries from it; and thus they pursue a most demoralising course, which destroys themselves. Let the reader judge for himself. The Canary Islands, with a population of 230,000, have more than 400 paid civil officials; to these may be added the fifty superior officers mentioned above. In the Channel Islands, which enjoy absolute liberty, the police are unpaid, the judges receive no salaries, the municipalities are unpaid; the country governs itself without expense. Great Britain pays only six or seven officials for every 130,000 of the population. The system of salaried officials is bad, not only because it absorbs a large portion of the revenue, but also because it is demoralising and lowering to the character. If the number of paid appointments were reduced, those candidates for office who would have committed any meanness to obtain it will become useful and honourable members of society when obliged to live by their labour, whether manual or intellectual.

These remarks, which were written in the Canaries a few months before the revolution of September, 1868, have been retained because the new Spanish Government

has as yet done nothing for the Fortunate Islands. Some old laws were on the point of being repealed by Queen Isabella's government, which saw that some administrative and judicial reforms were absolutely necessary. We cannot tell what may be done, but the Islands have received permission to send representatives to the Cortes. Even that is something; and perhaps, thanks to these representatives, insular interests will suffer less than under the Bourbon dynasty.

The events which have taken place in Cuba should, we think, teach the present Government a serious lesson, and ought to make it sooner or later resolve on the emancipation of the Spanish colonies, which, like all other transmarine possessions, are desirous of it. The United States, Canada, the Ionian Islands, and Australia have shown, or will show, clearly how bad for countries it is to have remote possessions. In particular cases the system may continue; but it is easy to foresee at no distant period a separation by mutual consent of the Philippines, Cuba, and the Canaries from the mother-country, governing themselves under the Spanish protectorate. Separated from the mother-country, but still Spanish in heart and soul, governing themselves, the Islands, under the Spanish protectorate, would see the advent of an era of prosperity, of which, despite the breadth of their legitimate aspirations, the inhabitants have no idea. Then, not expecting any help from Spain, they would themselves make their own harbours, roads, and schools, and would form a merchant fleet; and these efforts would produce im-

mediate results, superior to those they would produce in less favoured countries.

Devote yourselves to agricultural labours and to commerce, and remain united, fair Fortunate Isles! Foreigners laugh when they hear of the jealousies which ruffle the calm of Teneriffe and Gran Canaria. Rivalry in commerce and civilisation is all very well, and is a sign of vitality. Live on without intestine wars, delightful Fortunate Isles! Submit to the home government, as long as it only taxes you; but if you are to be governed despotically, if your efforts to secure education, justice, and good government are rendered futile, then emancipate yourselves boldly. Spain would be powerless against you. Do not fear that you will be at the mercy of England, America, or France, as you are told; with what motive it is easy to understand. If you ever become free, remember that England and America respect and protect those nations which desire and are able to govern themselves.

Whatever form of government the Cortes may choose for Spain, we earnestly hope that that nation, which possesses for us so many attractions, may resume its onward course, and may once more find in the vanguard of European nations the place she formerly occupied, and to which she is once more able to aspire.

For the Canary Islands we desire self-government.

Chapter XIII.

A CONVERSATION BY STARLIGHT.

To The Marquis de la Florida, Orotava.

Madrid, March, 1869.

We went yesterday to the Cortes, hoping to hear Castelar or Margall speak; as ill-luck would have it, we only came in for a ministerial speech, full of reservations, vague promises, and puerile exhortations, addressed to all parties by one of your most celebrated generals.

We were scarcely in the street before Brünner, according to a bad habit of his, stopped, and taking me by the button, said:

'This is what comes of trying to run with the hare and hunt with the hounds; one ought to be either fish or flesh.'

'Very true,' said I; 'but do walk on; you will be overheard.'

We were in the *carrera* San Geronimo; the passers-by were stopping to stare at us, when one of them suddenly rushed up to us, exclaiming, '*Que tal, hombres?*' ['What is all this about, gentlemen?']

You will never guess who it was; it was Don Antonio

P., the young officer whom the ex-Queen had buried in Orotava—a frequenter of the casino, our old chum, your friend and Monteverde's. You may imagine how we talked about you. While going along the street, we bought a newspaper, and on a beautiful warm spring night we talked politics while walking to the Fuente Castellana.

Brünner, as you know, is a violent republican. In speaking of you to his friend Don Antonio, he said, 'What a pity that that gentleman is a marquis! Without that ridiculous title, he would make a good citizen of Saint Gall; but the evil is past remedy!' Brünner believes in the gradual decay of the Latin race, and persists in it. I daresay you remember his humorous tirades about Italy, where he lived for three years, and which he says must inevitably fall. Spain is, in his opinion, not in quite such a bad state as Italy, but still very bad. The Spaniards, he says, are indifferent and fatalists. From this state of things he has come to the conclusion that Spain must fall, like all Latin nations, but that she will survive her sisters.

'The Spanish people,' said he to us, 'possess a power of abstraction which enables them to live in a state of complete indifference to politics; the uneducated people and the peasants, the mob, keep themselves quite aloof and isolated. This faculty, extraordinary in a Southern race, makes the Spaniard singularly like the Arab, indifferent to everything that does not concern him personally.'

'Very good; you make us out Turks or Bedouins,' answered Don Antonio. 'But you are wrong, as wrong

as you can be; Spain, in driving out the Moors, in rising last September, proved that she is not indifferent, and that she knows how to free herself from a foreign yoke as well as from an arbitrary monarchy.'

'Excuse me,' said I, 'I think you are both in the right; for although the mass of the Spanish nation, being uneducated, is not as yet given to discuss matters of general interest and politics, yet it is, I think, embued with a strong patriotic feeling. Spain is to the Spaniard a unique country; the most beautiful, the richest, the most fertile of all. Uncultivated and poor, you say, Brünner? No, the Spaniard will reply, but rich and fertile: Spain can do everything, and knows everything. Ignorant and powerless, you say again? No; powerful, and equal to any other nation in science as well as in everything else, the Spaniard will say. These assertions, absurd on their surface, will surprise you; but if you look closer, you will find in them the proof of strong national feeling. It is not patriotism strictly speaking, the love of the military system, of royalty, of the clergy, of the arts, of the national glory or prosperity—it is something more, for it is unbounded and inconsequent, it is a sort of strange, exclusive passion, like jealousy in love; a blind, unreasoning, instinctive feeling, which supersedes all political knowledge without replacing it, although every feeling possesses some degree of real power.'

'I grant up to a certain point,' said Brünner, 'this blind patriotism among the masses, if you will admit that it is not shared by the nobility, middle classes, and officials, the intelligent and educated portion of the nation.'

'Alas! you are right,' answered Don Antonio; 'I fear there is no doubt that the intelligent and educated classes, with the exception of a very small number (which, however, increases every day), are at the service of the government, of money, of the army; this explains the eagerness for place, which is destructive of all patriotism.'

'And it also explains,' added Brünner, 'how it is that leaders with money find armies, that only generals can stir up military revolutions, and that these revolutions once made are monopolised by one party, which is soon overturned by a league of all the others. Meanwhile, the nation, indifferent or nearly so, as you yourself admitted, has only participated in all these movements by paying, obeying, and annulling itself, and the country is in the hands of partisans who, when victorious, make haste to enrich themselves, knowing that they will soon be defeated.'

'Gentlemen,' said I, 'since officials are the cause of so many evils, you should define the part they play in Spain.'

'That will not be difficult or admit of dispute,' replied Brünner. 'Tell me, Don Antonio, is it not evident that in Spain there are ten different parties, while in Northern countries there are generally but two, Conservatives and Liberals? In the North all officials, with the exception of the Ministry, remain aloof from party struggles. In Spain this is not the case; there is an army of officials for every department of any importance, of whom perhaps one-tenth are in office, and nine-tenths without employment; these nine-tenths think only of enrolling themselves under some kind of banner, calculating the chances, not

of improving the general condition of the country, but of turning out those in office and taking their places. What happens then? Those turned out join those whom the incoming party have not been able to satisfy, and the struggle recommences. They have tried putting those dismissed on half-pay, they have made *cesantes*, but all to no purpose; it has only impoverished the Treasury more and more, and the army of paid officials is as formidable as ever. It is plain that there can be no banner, or name, or political programme applicable to divisions which owe their existence to such a cause as this, and so it comes to pass that parties are innumerable, and this want of cohesion wastes the moral and material forces of the nation; for these parties are obliged to ask some influential general to make a *pronunciamento* at the first opportunity. The aim of the insurgents is not power, but salary. The Spanish sovereigns since the year 1600 have kept up this order of things, which strengthened their own power; and to this fact is to be attributed the eagerness of the triumphant revolutionists to give themselves a new master, when by force of circumstances the revolution has outstripped their intentions and overturned the monarch. This is why Madrid has voted for a monarchy; for a republic would have condemned 50,000 or 100,000 idlers who live upon the public purse to hard work; and this is why the generals of the Provisional Government demand a king like the frogs in the fable, even were he to be a log.'

I must confess, my dear Marquis, that Don Antonio knew not what to say; he remained silent, biting the cigar in his mouth; at last he said:

'But do you mean to say that our educated middle classes are not capable of saving the country by the knowledge they have acquired, by determination, by love of liberty and independence? Then the army could not——'

'Not so fast,' said Brünner; 'we are just coming to that. The middle classes, which only came into existence at the beginning of this century, have gained a share of power by their education and wealth; but not being sufficiently recruited by a proportionate elevation of the lower classes into their ranks, they have been from the very outset a privileged class. The middle classes disown their plebeian origin, look upon the lower classes as enemies, and rely upon despotism. The liberal professions do not suffice for the support of the younger generation, and are deserted; while the greater number, disliking a long course of study, hard work, agriculture, and trade, take to place-hunting, and care for nothing but salary. Thus it is really the educated classes, the middle classes, who create parties, and make use of them for their own purposes.'

'But you will acknowledge,' said Don Antonio, 'that Catalonia and Arragon are exceptions; the middle classes there really do work. In Cadiz, Malaga, and even Seville, you will not see the wretched servility of the Madrileños; there are noble and generous hearts among the middle classes which beat for the welfare and freedom of their country.'

'I think, Brünner, you will allow that Don Antonio is right; the fact of the minority in the Cortes belonging almost exclusively to the middle classes is a clear proof of it. You will both agree that this excellent portion of

the nation is far more capable than the army of guiding it on a better course.'

'And have you not also noticed,' added Don Antonio, 'that some of the nobility have liberal tendencies?'

'Don't talk of the nobility!' cried Brünner; 'we know their ways. In France, on August 4, they threw, basely, as I think, to the revolutionary winds the titles which they as basely asked for again at the Restoration; and your Spanish nobles have fallen much lower than the ancient French nobility. What is the good of quoting exceptions, very likely not genuine? Privileged people like privileges, and wish to keep them, even although they may pretend to be ready to abandon them. Whites are whites, and will continue so, I maintain. I always mistrust democratic marquises.'

'For more than two centuries your nobility have displayed nothing but a sterile pride, puerile vanity, ruinous magnificence, and, at the same time, a servility incompatible with their arrogance. Instead of gaining power and putting themselves in the place of the clergy, instead of forming an oligarchy, which after all would have been better than the double despotism of king and priest, the nobility have humiliated themselves, being content with alms, empty titles, ribbons, and appointments; they have not even cared for military glory, and are thus below the Austrian and Russian aristocracy. Abandoning politics, they are reduced to priding themselves on having horses from London, carriages from Paris, and cigars from Havana, to cry to the dynasty to satisfy their ruinous necessities, and to drive stupidly every day round the

Fuente Castellana in their gilded carriages. These men, who, from their position, ought to manage the affairs of the nation, and the officials who govern the richest country in Europe, above ground and below, have produced increasing wretchedness, fatal ignorance, the extinction of commerce, and disturbances in the government, and have inspired contempt in every honest heart.

'The Spanish nation, which, only a few years ago, seemed on the point of regeneration, has fallen again after the effort, groaning and bowed down; the national credit no longer exists, either at home or abroad; honour is a matter of traffic; and the clergy force back to the reconstituted dynastic despotism the sheep who would fain escape the watch-dog, so that there is not a really free person in the whole kingdom. The navy is unarmed; the arsenals and harbours, the treasury and the national bank, are empty; while, on the other hand, the theatres, churches, promenades, and amphitheatres are crowded; and, to crown all, the throne of Charles V. is occupied by an hysterical, bigoted woman! In the midst of all these intrigues and degradations, the people have remained aloof and indifferent, participating in these successive revolutions only by their increased wretchedness and heavier taxes; in short, you are on the point of depopulation—*finis Iberiæ*!'

'You are correct in most of what you have said, Brünner, but you might make the same accusation against the same classes in Russia, for example, and yet you do not believe that Russia is near its end; besides, do you know what a people may endure before it is hopelessly con-

demned? These long slumbers, followed by the galvanic convulsions which Spanish revolutions display, indicate a considerable amount of vitality, and give hopes of renovation.'

'Hopes which, unfortunately, have been always deceived,' answered Brünner. 'Insurrections stirred up by revenge, egotism, jealousy, and ambition, can do no good; they have never had any practical aim in view, and could not therefore last long. The problem now remains to be solved; we shall be able from what takes place now to foretell the future of the Spanish nation. Will it become a republic, and remain one? Or will it go back to monarchy, and abandon its destinies, as it did before, to the cunning of every class—the army, clergy, nobility, and middle classes—and allow the greater part of the national treasure to be swallowed up by the 500,000 officials of a despotic Government called *Liberal*?'

'Who shall venture to say, "No"?'

Brünner was silent; it was evident that Don Antonio felt what he had said deeply: his emotion prevented him from speaking.

Presently Brünner took his hand, and said, with his sardonic smile—

'We are men, and must look the matter straight in the face. You judge Spain by its anti-monarchical revolutions, which you consider to be the result of a strong determination to remain free, and this false interpretation of facts makes you misunderstand the lesson history teaches. Is it true now that, liberty once acquired, the Spanish people have abdicated all their power in favour of an

authority appointed by themselves? Is this senseless delegation of an authority which the people individually feel to be too heavy for their weak hands a fact? Yes, Don Antonio, it is—a melancholy fact; and how can you tell that the educated fraction now in power will not desert the popular cause to-morrow, and seize on the finances as before, and imprison or banish the few too liberal recalcitrants? How can you tell that the mass of the people will not return to-morrow to their apathy and indifference, flattering themselves with ideal chimeras? But you may be very sure that if Spain again abdicate her right to exercise her power, her last chance will be lost, for I believe that her reactionary forces are growing gradually weaker, like those of a sick man. The Latin nations of Europe and America are exhausted and worn out; they allow themselves to be governed by all manner of despotisms—absolute monarchies, constitutional monarchies, spiritual monarchies, and despotic republics; and thus each day their awakening is less probable, moral energy becomes gradually extinct, and the perception of abstract ideas of liberty and equality becomes harder and harder to minds long trained to servitude. This is why, forgetting that they possess in themselves the power from which all other power emanates, the people submit like cowards to the despotism which destroys them.

'There is nothing more melancholy,' resumed Brünner, after a pause, 'than this decay of the Latin races; they do not fall gloriously, resisting the invasion of the barbarians with all their might. No; they die from the annihilation of the individual, from the voluntary and shameful

abnegation of each; no misfortune has diminished their ridiculous military ardour, their base terror of servile justice, and their absurd national vanity, which obstructs their intelligence, hinders their view, and brings down everything to their own level.

'A melancholy spectacle!

'A monarchical, credulous, sheeplike race, always ready to give itself a master, to yield abjectly to force, to follow blindly in the beaten track of its predecessors; a servile race which could not exist without some leader or head; a treacherous race, fickle and impressionable, always deceiving even the master it has chosen, upsetting him by a democratic revolution, only to choose another king immediately; a lost race, for it persists in looking for its prosperity and freedom to something, to someone, to a man or an event, proclaiming itself for ever incapable of a firm resolution and of governing itself by keeping the freedom it has won.

'But is that liberty, which is as air and sunlight to mankind, necessary for the Latins? I believe not. If it be useless to them, let them say so. In that case, why should they perpetually disturb by revolutions, riots, and plots, the placid enjoyment of the rich, the selfish quiet of the middle classes, the fat pastures of the priests, the swaggering idleness of the military, the sterile dogmatism of the universities, the secret services of the magistracy, and the working of the administrative machine? They had better obey the Government, for every fresh revolution will entail more taxes.

'If the Latin race has no need of liberty, and will

give up all attempts to reconquer it, its governors will, in exchange, give it a little more prosperity, reduce the army to the minimum necessary for guarding the flock, and sacrifice fewer millions to satisfy the national vanity; liberal aspirations will be replaced by a system of industrial and commercial liberty, by the satisfying of the people's appetites. Then both governors and governed will be fat and well fed, unconscious, without shame, but not without pride, looking forward to apoplexy as their end, instead of the present misery and decay. That will be something like, and the philosopher will no longer be saddened by the absurd display of so-called liberal charters, stillborn republics, and constitutions, after the fashion of 1789, continually violated; melancholy parodies, mere jugglers' tricks. The legitimate crowning of the edifice will be not liberty, but prosperity.

'The Latin races abdicate all their rights in favour of the Government; then let the Government feed them! They cry for food; let it be given them!

'The Prussians, Russians, and English, will indeed laugh at them!

'Irony, thou who art justice, avenge the Northern men for all the mischief that the Latin race has done them, for all the benefits she has brought them and despised for herself!

'Let the Latins enjoy the fruits of self-abnegation—servitude and degradation!

'Deliver them from what they fought for for so many centuries—liberty and fraternity!

'Let the rest of the world despise the Latin races; and

if they are to survive, let it be on sufferance only, given up by their dissensions to hatred and fury; let them devour each other like wild beasts!

'By the arts, you Latins have charmed the world, advanced civilisation, and freed the way for progress; by means of science, philosophy, and letters, you have ruled over the minds of men; by your labours, blood, and agony, you have created and given to the world the idea of liberty and equality; and what good has it done you? Leave these chimeras; only one thing is worth anything—force! By force, Rome subjugated the ancient world; by force, France under Charlemagne and Napoleon controlled Europe; by force thou, Spain, hast seen the sun illuminating thine empire in both hemispheres. Compared with Cæsar, Charlemagne, and Napoleon, what are Dante, Molière, Cervantes, Murillo, Velasquez, and Voltaire? Nothing.

'Yes! let the idolatry of the sword engross you, let a blind credulity possess your souls, let the Government take from you all individuality; slumber, ye worn-out races, the time has come!

'There must be expiation for Saint Bartholomew, the revocation of the Edict of Nantes, the 18th Brumaire, and the *coup. d'état.*

'Italy has to expiate her crime, the Pope-King.

'Spain has to expiate the Inquisition, the Jesuits, the depopulation of America, and the slave trade.

'Then, under the orders of Bismarck, Nesselrode, Metternich, and Lord Russell, governing Spain through some Coburg or Bourbon, there will yet remain to you

what will be quite sufficient for the degree of felicity which you deserve—the government, the clergy, and the army.'

Long after Brünner had done speaking, we still seemed to hear him. A sort of nightmare weighed upon us. But I, perhaps from being less immediately interested in the subject, and having besides been long cognisant of Brünner's theories, regained my composure before Don Antonio, who was unaccustomed to such fierce irony.

'Yes,' I said, 'all this is what one would be tempted to believe and assert after studying Latin revolutions, and the advance towards despotism which has always succeeded them; and yet such reasoning is in my opinion unjust, and the conclusions false, or at least forced.'

'Oh, leave me my delusions!' cried Don Antonio. 'Tell me that the liberty I dream of is possible; that Spain, for whose freedom I would give my life, will one day possess it; tell me that Brünner is mistaken!'

'There is a certain school, my dear Antonio, which maintains that races, like individuals, have a limited existence; that the fatal law of death governs them, and drags them inevitably to their fall. Voltaire himself, that great preacher of progress, justice, and liberty, might have been quoted in support of this theory by Brünner, for he says—

'"Each nation has reigned in its turn on the earth."

'But while acknowledging the decay of the Latin races, it must be admitted that the enormous development of the Saxon races makes this decay appear by contrast more

rapid than it really is. I think that the fatal law which avenges holocausts and condemns nations and races, only applies to those who have vainly attempted the transformations imposed by the law of progress, and have hopelessly lost all sense of the good, the beautiful, and the just. The Latin races have not yet come to that; the Spanish nation still less perhaps than her sisters. No doubt there is a limit after which, when a people has had several chances of reforming itself and gaining its liberty, and has made no use of them, but still condemns itself to perish by the use of fatal institutions, there is no longer any hope for it; but so long as it has in it any power of reaction, this limit has not been reached, and despair is a crime. The Spanish nation has this power; let us therefore look not to what it has done, but to what it may do in the future.'

'You have met with your match,' said Don Antonio, addressing Brünner. 'Spain has been the last to enter on a revolutionary career; she has therefore a better chance, and we may expect everything from her. Spain has lost only her wealth and external influence, which is of slight importance; her various governments have only injured the nobility and perhaps the middle classes, but very few of the people; it is not worth speaking of, for the nation is strong, energetic, and patriotic. It is a block of rough ore, which must be cleansed from all impurities before it can shine in the sunlight of liberty. Let us hear no more of brigands and highwaymen and knives—they are fantasmagoria which trouble none but diseased brains. A little prosperity will soon put an end to the sturdy

beggars who prefer robbing on the highway to robbery by cunning; a little education and hard work will make the knives disappear, and begging, gaming, and idleness will give way to honest labour.

Yes, that which may save Spain, and promises her a future more lasting perhaps than that of the other Latin races, is that, with few exceptions, the body of the nation is sound. True, it has lived for centuries in a state of inertia, but the race is not degraded; it is exhausted, dreamy, and unhappy, but life has not abandoned it, and although the Government has been at the last gasp for a century, yet the nation is full of physical and moral vigour, and may one day astonish Europe by its energy. The Spaniards still have in their veins the blood which rebels against despotism, whether native or foreign; on Spanish soil, all foreigners find every Spaniard their enemy; this is a peculiar characteristic nowhere else to be met with in the same degree. There is in this medley of Iberian, Cantabrian, Northman, Visigoth, Vandal, and Arab blood, a patriotism, passionate, savage, barbarous, and ferocious, as might be expected. Thucydides 2,000 years ago called the Spaniards "the bravest of barbarians." The Carthaginians and the Romans praised their courage, their ardent patriotism, and their poetry; the Greek Diodorus, and the Roman Strabo, Florus, and Livy, called them "glorious barbarians," "great patriots;" and with reason. But the series of patriots headed by Viriathus and Pelayo was continued by the Cid, Padilla, and Palafox, and the native guerillas will soon make their appearance again if they are needed. Spain has fallen,

but the Spaniard is living, and is once more on his feet; he has always been patriotic, and soon, having become clear sighted, he will assert his rights.'

'Bravo, Don Antonio! your picture confirms me in the disbelief of Brünner's gloomy forebodings.'

'Well, my friends, even if I be mistaken,' said Brünner, 'don't let your enthusiasm run away with you just yet. I grant, since you maintain it, that the body of the people is sound and patriotic; but you will do nothing until by a long course of liberal institutions, which you say you will be able to gain for yourselves, you have educated this body, at present ignorant of its rights and duties. Liberty, at all events at first, entails many hardships and difficulties. If, in order to avoid final shipwreck, the Spanish nation (the most fallen in Europe, considering the height from which it fell) by a power of reaction of which you say it is capable, sick of clerical and monarchical tyranny, should resolve to limit the power of the Government, to bring back individuality, liberty, equality —this crisis passed, would Spain take up a definite position, and would the people have the firmness, courage, and good sense without which no durable government can be founded? I would not answer for them.'

'Be it so,' replied Don Antonio. 'But, after all, it is possible; and if you have decided against us from the evidences you have collected, we may be allowed to look out for facts which shall lead us to a favourable conclusion. For instance, can you help acknowledging that Spain is now entering on a fresh epoch, with the chances wonderfully in her favour; is she not freed from the

"social question," that terrible bugbear which rallies alarmed Conservatives round despotism? While treacherous men, or those interested in upholding the throne, hold up this red spectre before the masses, to frighten them back to despotism, such a manœuvre is impossible among us, for political questions of government and administration alone occupy the Spaniard, and present fewer difficulties, being more easily solved than in any other Latin country. To lead us to a republic, we have local patriotism, provincial privileges, different customs, peculiar dialects, and the memories of the past, which produce in Spain a certain peculiar provincial life, which is a solid foundation for a confederation. It is clear that absolute unity has never existed in Spain, and that different privileges have belonged to different provinces. This variety in unity actually exists; it would therefore suffice to form a general constitution, and to charge the central power with the duty of making it respected throughout the Iberian territory. Cadiz and Madrid have already sketched out the general principles essential to all nations in these days. Each province might also, according to the American or Swiss plan, have laws of its own, which would give the nation a stability and power such as can be found nowhere else except in America or Switzerland. There would be not one nation to be defeated at one blow, but ten provinces one after the other, which would be impossible; one bold soldier could no longer destroy in one day the work of centuries.'

'Not so fast, my dear Antonio: you have already

reached your republic; but tell me, do you not see that Spain, contrary to your wishes, is preparing for a monarchical government? Let us consider this probable state of things. In that case all is lost, unless this government were *disarmed*. Theoretically, we may imagine a centralised democratic—that is, disarmed—monarchy; but as a matter of fact, it can only exist on the condition of strong decentralisation, and of being deprived of all active authority, as is the case in England. Contemporary history proves that no constitutional monarchy can govern without monopolising authority, and, therefore, without destroying national liberty. If this is not the case in England, it is because the British monarchy is a fiction, the government being really in the hands of an oligarchy. It is impossible to allow that a monarchy without real power, without money, without influence, can exist; yet I may be mistaken, owing to my preconceived republican feelings. Let us allow, then, from a purely philosophic point of view, that the words, republic, empire, monarchy, are only empty names, and that in reality there are but two kinds of governments—those where the citizen rules, and those where he delegates his power. This admitted, the first is a republic, by whatever name it may be called, the second is a despotism. A monarch who is at the head of a constitution, as Queen Victoria is, corresponds to a president of a republic. A president of a despotic republic, as Lopez, for example, corresponds to Napoleon or Louis XIV. If the monarch whom Spain is going to elect is to carry out the constitution by the sole force of his will, he will correspond to

Queen Isabella; the constitution ought to govern even the king himself. Then this king will for a time correspond to the President of the United States, and the choice might turn out to be a fortunate fiction. The English have proved that this system is a good one; their monarchy, which they overturned when it was despotic, now accommodates itself to monarchs of either sex, whether possessing any capability or not; no English monarch, were he a Cæsar or a Napoleon, could take away an atom of English liberty.——.'

'That is exactly the reason,' said Don Antonio, 'why nothing hinders the establishment of a monarchy like that of England, if we cannot get a republic; we should thus have English liberty, and a code, equality, a free Church, &c., &c., as well.'

'In theory,' answered Brünner; 'but, practically, do you think matters are managed so easily? Think of the length of time between the death of Charles I. and William of Orange; how many wars, how much bloodshed, and what trouble William himself had to teach constitutional ideas to the aristocracy and the people. Finally, the system prevailed in England, and it was this example which first opened the eyes of observant Europe. But is your aristocracy trustworthy, liberal, constitutional? No. Or, can the Spanish nation throw off the old man all at once, casting to the winds in an instant its innate servility and love for all that is strong, powerful, and glorious? Nations are not like individuals, capable of being transformed in a moment. And so you have once more the insoluble problem, the key to which the nation alone

possesses, without perhaps being aware of it, and certainly without understanding it.'

'Well, but,' said I, 'experiences such as this must enlighten a nation, however blind you may think it. However ignorant it may be, it cannot but see that as a republic Spain is more free than under the monarchy, and that papal thunders are harmless. I go farther than this; I believe that even if Spain, after this energetic effort, were to go back to a monarchical government, we need not despair; she would be thrown back for ten or perhaps twenty years, at the end of which a new revolution would enable the nation to see the truth more clearly than it does at present. No, even in the event of another fall, I cannot believe in Spain's absolute decay; there are two reasons against it—modern science and the progress of mankind.

'The sea ploughed by ships obeying the will of man; Europe, America, and Asia brought into almost instantaneous connection by the electric telegraph; isthmuses pierced; steam throwing its white banner to the winds on Alpine summits, crossing glaciers, and passing through stupendous tunnels; locomotion urged to its utmost limits, and even the light obedient to man's caprice; machinery, subdued to the docile servant of man, applied to trade and agriculture; works of art multiplied *ad infinitum*; chemistry, geology, and almost all the physical and natural sciences carried in fifty years to a fabulous pitch; history re-discovered and re-written; political economy created, taught, and propagated; poetry, music, and literature every day producing chefs-d'œuvre—in a

word, all the recent conquests of the human mind,—assert the vitality of the Latin races, which have for the most part created these marvels. Yes, the Latins search, invent, and discover, while the northern races perfect and apply their inventions. And beyond the material region also, the Latins have sought and found the great social principles, and have given them to the world; the northern races have applied them. Agitated by strong aspirations after good, the enslaved and wretched Latin races have eagerly snatched at opportunities of exercising their inventive powers; and they assert that, possessing as they do these creative powers, they are still capable of aiding the progress of the world.'

'I see what you are driving at,' said Brünner, 'and I know the answer. It is precisely what sovereigns say to their official writers. "Go," say they, "and lull the silly sheep with pleasant songs of their industrial and artistic glories, that they may forget their slavery and allow us to rivet their chains;" there you have the demoralisation and pernicious influence of the progress of science on the public character which Rousseau predicted and which we now see.'

'How do you know that if Rousseau could now apply himself to searching out facts condemnatory or approbatory of the influence of the development of art and science on the public character, he would not, on the contrary, find that this development has aided social progress?'

'But,' said Brünner, 'is progress in science and art capable of producing a high state of morals, and democracy? Can a nation at the same time reform itself in material

matters, and develope intellectually? I do not myself think it can; but it is an important question.'

'No doubt it is; but however that may be, you must acknowledge that many times at the very moment when the Latin races were thought dead, they have had times of awakening, of renaissance—when in art, poetry, and thought they have sought and found a compensation for their woes, and sometimes strength for fresh political action.

'Is it then clearly proved that they have no longer any power of action, and that they may not once more find a propitious hour, in which, abandoning for a time material interests and artistic needs, they may resume the exercise of self-government? They have attempted it twenty times; and progress, more and more accelerated, and penetrating deeper than in former times, will every day make the success of these efforts more possible.'

'I agree with you,' said Don Antonio, 'and everything seems to prove that this result is imminent. We blush for ourselves, that is something, and I believe we are about to resume the work interrupted in '92.'

'The present abnormal situation certainly cannot last. Before this century is over, the question must be solved: every outlet is stopped, except that of republicanism; sooner or later, that must be accepted. As we agreed, the Latin race has reached the culminating point of artistic and industrial development; its superiority is indisputable, and its intellectual sovereignty is acknowledged. It may share this sovereignty with the northern races, but cannot abdicate it; it has traced the path, but

has been forestalled in the use of it, that is all. It must necessarily re-enter on the possession of the benefits it has given to the world.'

'You come back to your old argument,' said Brunner, 'and it is very evident that Spain has only to will; Italy and France the same. But will they do so? that is the question. Do you think you approach the solution by proclaiming your monarchy? The individual royalty of every man is, I grant, a guarantee of progress, but this royalty can only be exercised by the constant development of personal liberty; its only justification lies in the vigorous exercise of every faculty. The American and Swiss republicans strive after this, and to this they owe their prosperity and liberty; and a future of peace, power, and wealth, such as the ancient world never dreamed of.'

'I assure you,' said Don Antonio, 'that all the efforts of the young, intelligent, and upright Spaniards are directed to this end; that education is spreading, and priestly influence declining; that through the freedom of the press and the right of assembly, an active propaganda is at work, and already stirring the masses who have hitherto lived in the indifference you so justly reproached us with; the system of paid officials is threatened—what more shall I say? It seems to me that we are progressing; nay, I am certain of it; if you had known Spain some years ago, you would perceive the difference.

'You take too gloomy a view of our future, Brünner; the volcano which from time to time sends out sparks cannot be extinct.'

'I admire your confidence,' said I, 'and share it, for it

is when the horizon is the darkest, that we may expect the most from the Latin races. While the northern races conduct their revolutions with a calm and deliberation which I admire, those of the south delight in tempests, and carry on their revolutions amidst thunders and lightnings.'

'As for me,' said Don Antonio, 'I see through the dark night a white apparition; it is not the phantom of the last hour of the Latins, it is liberty, the spirit of progress and of the gradual enfranchisement of mankind.'

'And as for me,' said Brünner, 'I think you are both mad, suffering under an hallucination. Leave your phantoms to visionaries, and your progress coming out of fire and flames to the credulous. Nothing comes from your volcano except ashes, which foretel misery and ruin, and what came from it yesterday will come from it to-morrow. You, my friends, are like all the sentimentalists, the oppressed, the banished, and the conquered, who have all seen the goddess of liberty. What is coming is slavery and ruin; liberty has gone across the Atlantic! Let us reason like sober men, and not like utopians. The vitality you assert, and the immense progress made in art, science, and trade, coincide with a moral decay and loss of energy which vindicates the fatal law of the fall of races from over-civilisation; you must allow this, for it is a fact.'

'You fall back on Rousseau's conclusions,' remarked Don Antonio.

'I accept the discussion on these premises,' said I; 'I was comin to it when you interrupted me just now.

I differ from Brünner's illustrious countryman; forgive my boldness. The upper classes are demoralised, granted; these two castes dreading changes are devoted to the Government which protects them; the Government, indifferent to what is good, energetic against anything that opposes it, wavers between street massacres and illusory liberty; there is decay, and this coincides with an excessive development of the intellectual powers; therefore, you say, Rousseau was right. Right in 1749, perhaps, but wrong in 1869, for the condition of things is altered; '89 separates the two epochs. You have been so blinded by the progress of science and art that you cannot see that there is a very perceptible movement among the masses by means of education, prosperity, and material and intellectual progress; this movement, which leads to the moral perception of right, duty, justice, liberty, and equality, began throughout Europe in 1789; from 1815 to 1850 it has spread and expanded immensely, it is working now, and the seed is germinating; it will soon spring up, for it has fallen on good ground, the lowly, the strong, the people in a word. It is to steam, electricity, cotton, paper, &c., that we must for the most part attribute it, and this fact proves the salutary effect of the progress of art and science on the public character. Even wars have aided this movement, as well as bad kings, despotic tyrants, adventurers, and the most evanescent revolutions; banishment, which has been so largely practised in this century, has sent men to schools of liberty, who have thus returned enlightened to their own country. And who know these things better than the Spaniards? who have proved them more than the

Latin races? Prior to 1749, the date of Rousseau's paradoxical discourse, had any nation on the face of the globe any precise idea of right, duty, justice, liberty, and equality? No, they are absolutely modern ideas, and the only ones which can stop nations from entering on a retrograde course, and guide them in the right path. Was there ever such a condition of affairs before? What is the idea which agitates Germany? Self-government, enfranchisement. And Hungary, and the Danubian Provinces? Self-government, and enfranchisement. And Greece, Spain, Italy? All Europe in short? Did these ideas occupy her mind a hundred years ago? Not in the least; dynasties, the possession of lands and men, religious wars, these were all. Now—the question is how to gain more liberty, not territory; of the rights of citizens and the augmentation of their power, not of their numbers. Certainly, there were revolts against despotism in former times, but the rebels were never guided by duty and right. These ideas are modern, the nations are beginning to use them for the first time, and you cannot help admitting it, my dear Brünner.'

'I am quite ready to admit it; but can this movement stop decay?'

'Revolutions are never unfruitful; they are not, as some assert, devastating torrents, but fertile, salubrious streams, which cover kingdoms with fertile institutions, as the Nile covers Egypt with harvests. Whilst the Mississippi rolls along, and like the Latin race is carried on to the abyss, the sea—the tide goes up quietly and deposits fertile alluvium on the banks; so the ideas of liberty,

equality, right, and duty ascend the course of Latin decay, and give the first-fruits of association and solidarity—public libraries, primary instruction, co-operation, right of suffrage, abolition of primogeniture, prolongation of life, religious toleration, abolition of capital punishment, &c.—all enormous, stupendous changes, which we do not perceive because they constitute the very air we breathe, but which would astonish and stupefy the great Genevan.'

'All of which we intend to make use of in Spain, and in such a way as may perhaps astonish our Latin brothers in France and Italy.'

'And you will do well,' said Brünner. 'I give in this time; besides, it is two o'clock in the morning; let us go to bed.'

'I am quite ready,' said I, 'but on the way you may listen to me, for there is a great deal to be said about the liberal and revolutionary counter current, and for brevity's sake I will only quote dates and facts.

'Look, my friends, it was on that mound which is being levelled that a cavalry officer, in obedience to a chief who was then all powerful, settled by a massacre the exact date of the superiority of right over triumphant force. The cannonade from the Buen Retiro covered Spain with republicans. In the year 1812, the Cadiz Cortes took their place in the new order of things, by means of that constitution which is still the model of constitutional charters.

'There stands an old castle on a rock in Portugal, where Moors, Spaniards, Romans, and Carthaginians have

ruled in turn; Cintra was to Junot what the Retiro was to Murat, and after having signed his famous capitulation there, the blind soldier had no idea that he was giving up Portugal to revolutionary ideas. The nation, submissive until then, had succeeded in 1823, after repeated efforts, in putting into practice the ideas of '89. It was in vain that the Bourbons struggled against this national movement, which finally landed them in America.

'At the beginning of this century, the two Siciliesia prey to decay, were being dragged by the Bourbons towards the abyss; Rome was in the power of Austria, and Venice and Milan in the hands of a Viennese viceroy. A deceptive state of things! The counter-current brought ideas of liberty, which have germinated. The Grand-Duke of Tuscany was the first in Italy to grant justice, liberty, and prosperity, and afforded a refuge to all Italian revolutionists.

'Later on, Piedmont, abandoned by clerical and despotic reaction to the current of decay, arose with Charles Albert, was overcome at Novara, and the vanquished of to-day, by adopting liberal ideas, became the victor of the morrow.

'Spain, long agitated by ideas of political progress, in several revolutions, has sown the seed of democracy, has just overturned the dynasty, and is entering on the new path marked out by modern ideas.

'What shall I say of France, of Austria, of Germany, of Russia even, emancipating her serfs?'

'Let us hear more about Spain,' said Don Antonio.

'Well, if Spain, immediately after a military revolution, has shown the world the astonishing spectacle of a third of the nation behaving with a calmness and good sense equal to that of American or Swiss republicans, what has produced this miracle? The small counter-current, too much overlooked by Brünner, unforeseen by Rousseau.

'Spain will learn day by day that men can do nothing in finance, agriculture, commerce or trade, without being free, protected by justice only; she will learn that her children had better be free red Indians than enslaved Spaniards; that it is better to live without art and without trade, than without freedom of conscience, right of assembly, and liberty of the press; she will see that when citizens are united, it is impossible to take from them the advantages they have gained, and that then only can they devote themselves to labour, which gives strength, energy, morality, and intelligence; she will understand that, as a guarantee, she will need a certain political form; the word has already been mentioned, but the thing must be had, a Federal Republic, and it must be maintained.'

'So be it,' said Brünner.

'And supposing that it is not realised now, I am convinced that Spain is impregnated with the new ideas, and that the present generation will see the birth of the Iberian Republic.'

Just then, we reached the Hôtel de Russie, at the door of which Don Antonio left us.

As for me, being unable to sleep, I wrote down, for

your benefit, this conversation by starlight, which will remind you of our political chats at Orotava.

Be so good as to remember us to all those who welcomed us so kindly; and be assured that, if I love your beautiful country, I have also, a sincere affection for you.

Su seguro servidor,

Chapter XIV.

RETROSPECTIVE REVIEW.

After a few months stay in the African islands, we were obliged to return to Europe. The 'America,' a steamer of 1,000 tons, lay in the roadstead, waiting until the tempest, which for two days had not allowed any passengers to embark, should be over. At length the wind abated, and about five p.m. we started. We had scarcely doubled Point Anaga when the *levante* rose again, and a fearful storm spread over the Atlantic. During long hours of day and night, we were able to contemplate the beauties of the sea in a storm. The compasses were out of order, the helm half broken, the ship, under bare poles, fled before the tempest, and, as if by miracle, the fires were able to be kept lighted. The 'America,' was a new vessel, with a Catalan crew, and we know what sort of sailors they are; so, either by chance or skill, the steamer, after five weary days, came into Cadiz Bay. This storm destroyed more than fifteen ships on the coasts of Morocco, Spain and Portugal, and amongst others, the 'Ethiopia,' the ship which had taken us out to Teneriffe—it perished with all hands, on the voyage to Europe, between the Cape Verde Islands and the Azores.

Divided between joy at returning home, and regret at having left the Fortunate Isles, we recalled to mind the friendships, broken off perhaps, the principal facts, incidents, and annoyances of the voyage; a last glance thrown back, by which we seem to engrave more deeply on the memory the general aspect of a picture abounding in details. After one has studied men and things near at hand, it is as well to survey them from a distance, and judge them more impartially than one could on the spot. We trust that our readers will be willing to follow us in this short retrospective review.

It was long ago remarked that the most frequented places are frequently the least known. This truth is especially applicable to the Canary Islands. Surface, distances, elevation, nature of the soil—everything which we should naturally think safe from erroneous descriptions, as falling exclusively within the range of geographical facts—all these have been abandoned, with few exceptions, to error, during long centuries. By adopting the most accurate accounts of modern men of science, we have been enabled to settle these various questions, and to give the correct geography of the Canary Archipelago and the seven Islands which compose it. We hope that, from this sketch, one fact will have been impressed on our readers' minds, namely, that the Islands all resemble one another, and that the whole group may be looked on as the remains of a submerged country, of that land of Atlantis destroyed by a sudden and mighty catastrophe, by which the ancient world was singularly impressed, and the memory of which, as we have pointed out, has been

handed down to us by poetry, fable, allegory, history, and science.

We have seen and accurately described the most important cities; and from the very beginning, from our landing in Teneriffe, we have given the reader an idea of the general aspect of the capital, and shown him its public buildings, squares and streets, and its mole. We have found in Fort San Cristobal, the first shapeless monument of the Spanish possession, an aged witness to the glorious history of the Islanders defending their country against barbarians, or against the English; at Laguna we have found the town the Adelantado founded a prey to convents, churches and chapels, and wondered at the splendid palaces of the nobles, and the dreary, monastic look of the whole place. We have seen the decay of this town, formerly so flourishing, now overshadowed by Santa Cruz, the real centre of the Canary Archipelago, which has left Laguna nothing but the College or Institute, and the magnificent Library; a consolation, of which, alas! it makes a too moderate use.

We have found the town of Orotava quiet and aristocratic, with carved balconies to the patrician houses, balmy gardens, and the sweet air of perpetual spring. In this charming town we took up our abode. Whilst collecting useful documents there, we at the same time went through the special geography of each island of the Archipelago, at the risk of inflicting a few moments of *ennui* on our readers: it could not be helped, for at Hierro we were to find Ptolemy's famous meridian, at

Gomera Columbus, at Lanzarote and Fuerteventura the first *conquistadores*.

Having studied the ground, we followed the Sire de Béthencourt from his barony of Grainville la Teinturière to La Rochelle, where he took as a companion a noble heart and a strong arm, Gadifer de la Salle. We saw the bold adventurers at sea, their crews, weary and restless, going on shore at Cadiz, and they themselves reaching the Islands with but a few faithful followers. There we saw brute force subordinated to moral force, Norman civilisation represented by justice making an impression on the natives, and subjugating them more successfully than soldiers and priests could, for Béthencourt had not a hundred men with whom to conquer the Islands. In order to carry out his undertaking, we saw him gathering reinforcements, acknowledging himself the vassal of the King of Spain, and receiving in exchange the investiture of the crown he had won with his sword. Gadifer thought that Béthencourt ought not to reap all the benefits of an enterprise which they had undertaken together; the two went together to the Court of Spain, to submit the dispute to the King's decision; a noble example! Gadifer retired satisfied. But Spaniards came with the new king to the Islands—priests, monks, and soldiers; a few more years, and the peaceable, benevolent, just rule of the Normans was superseded by the treachery, crimes, and cruelties of Maciot's successors. Béthencourt did not see these disasters. An old adventurer, when still young in years, he went home after six years of voyages, perils, and cares of every kind, to dig in his Norman barony; his

last words were of good wishes and farewell to the Fortunate Isles, which he had won by his bravery, boldness, wisdom in council, and uprightness of heart.

Having described the Conquest, and mounting our horses, we visited the Realejos, where Guanche liberty expired after a struggle of a hundred years; we visited Rambla, that charming valley where cascades of fresh water fall down to the sea, where plane trees, laurels, and palms exceed their ordinary dimensions, although planted in the rock; Rambla! where one knows not which to admire most, the boldness of him who created it, or the beauties of nature!

We saw Puerto, that pretty sea-side town on the lovely shore where bananas, pyrus japonica, lemons and oranges bathe their roots. Then, before showing Columbus to the reader, we were obliged, in order to complete our sketch of the western part of the Archipelago, to go to Palma and Gomera, but before quitting Teneriffe, we made the ascent of the Peak of Teyde.

Strange, inexplicable subject of mistakes! the Peak of Teneriffe has been by turns the highest mountain in the world and a molehill, the Pagan hell, the Elysian Fields, and an astronomical observatory! On its summit we have seen successively, Atlas teaching Hercules astronomy, the Greek hierophant, the priest of Saïs, the Tyrian, the Carthaginian, the Tangerine corsair, Lopez, Prussian princes, Humboldt, Bory de Saint-Vincent, Peigné, Borda, Anderson, Smyth, Arago, and Berthelot; from its summit we have seen the configuration of the Archipelago and the great Sierra, the jagged framework of Teneriffe, its

volcanoes threatening although extinct, Chahorra, the Montañetas, and the Cañadas, its smoking safety-valve; its crater still warm although covered with snow.

Descending from the heights, we have seen the dromedary pacing the field-bordered road or arid plain of Fuerteventura, bending beneath its load, and driven by an active mountaineer with his red handkerchief at the back of his head, gaudy waistcoat, and embroidered gaiters; and then, suddenly passing from these prose realities to Romish legends, we saw San Borondon, the putative missionary of Pliny's island of Aprositus, the island of Borondon of Portuguese pilots and Spanish sailors; we gave the legend, and hazarded an explanation of the phenomenon.

At Gran Canaria we found the island agricultural, with a favourable climate, numerous canals winding through its smiling valleys; and we gave an account of its conquest. On the side of Herrera and the Bishop of Rubicon were treachery and cruelty; on the side of the Guanches heroic loyalty. Silva helped his father-in-law in vain: the natives triumphed, Herrera ruined his kingdom to no purpose, and was on the point of being deposed from his governorship, when a soldier left a prisoner in Gran Canaria made a treaty with the natives. Herrera nevertheless was deposed, and resigned Gomera to his son-in-law, while Spain gave to Rejon the task of conquering the Islands. Victories and defeats, vicissitudes, quarrels among the Spaniards, a frightful mortality among the islanders from epidemics and Spanish steel—such was the history of the Canarian struggle for independence. But

the Spanish captains, being always able to gain fresh recruits, were necessarily able, in spite of their defeats, to conquer the island in the end; they triumphed after a struggle of ninety years.

We saw the fort of Lagarte in Gran Canaria, commanded by Alonso de Lugo, who was to conquer Teneriffe. He first conquered Palma. After three successive attacks on Teneriffe he fell into the hands of his enemy. Whether vanquished or victor, with extraordinary perseverance and sagacity he made use of deceptive promises and deep-laid treachery; the Guanches were decimated, and at length were unable to muster a handful of men. Bencomo, belonging to the purest type of heroism, gloriously terminated the history of this primitive race. The last remaining Guanches soon died out, and in 1600 there was scarcely a trace of them to be found: the primitive race which the most fearful cataclysm was not able to destroy perished by the hand of man.

We saw systematic emigration—that leprosy of modern society, the effect of political, moral, and religious tyranny—become the sole resource of the inhabitants, oppressed as they were by the clergy and nobility. Now, emigration has found its level, it is no longer a necessity, and is profitable instead of injurious to the Canaries.

The fisheries showed us the mixed descendants of those Guanches who had a horror of the sea under a new aspect, going to sea in badly rigged and badly built boats, although with solid hulls, ploughing the great African channel from Cape Noun to Cape Bojador. We described to our readers the wonderful hauls of fish which will fill

a ship in a few days, and the *chicharreros* whose fires light up the shores of Puerto and Santa Cruz. We saw that the fisheries might produce an important revenue if improvements were introduced, as from the increasing prosperity of the Islands we may hope will be the case.

Then we came to the Guanches, a magnificent race, miraculously saved, thousands of years ago, from the terrible cataclysm which swallowed up a world. We described their dress, their rites, their manners and customs; trifling indications which escaped the Spanish priests sufficed to enable us to describe the family and individual life. We also described the manners and customs of the conquerors, and we found Spain in the Canaries, with the additional qualities of agreeableness, gentleness, and kindness, and minus the drawbacks of pride and *hauteur*. We found the Canaries in a happier state than Spain—the climate more favourable, manners more refined, customs more orderly, dress more comfortable and decent, life, in a word, easier. If we had to regret Creole indolence, we had also to mark a great degree of energy among the field labourers.

The Fortunate Isles, on which nature has lavished her treasures, are less subject than continents to physical ailments. If the ravages of elephantiasis are still to be met with there, they are diminishing, and it may be hoped that by change of air for the patients this disease may be put a stop to. The upper classes, who are subject to ordinary maladies from their European habits alone, are yet very fortunate, for diseases are less acute there, and generally assume a mild form. As to the mass of the

population, they enjoy such good health as no other race on the face of the earth is blessed with.

Another scourge attracted our attention; the African locusts are an evil against which there seems to be no efficacious remedy, and to which the Islanders can only resign themselves; at the same time this misfortune is one which takes place only at distant intervals, and is rarely general throughout the Islands.

We have given the history of the Gardens of Acclimatisation, which for the last eighty years have attracted the attention of the scientific world, and delighted travellers. We think that the preservation of this institution was eminently the duty of the Canarians; its former glories may be renewed by a little effort, and if, as we think, a Garden of *Acclimatisation* is a utopian idea, a magnificent *Botanical* Garden ought to take its place; to open schools of botany and agriculture there is a dream impossible to realise at present.

In spite of great hindrances a considerable number of public schools have already been established, for the Islanders really feel the need of national education; we have no doubt that in order to obtain it they will make such efforts as will be crowned with success. We related the vicissitudes of the higher order of schools in Gran Canaria, Santa Cruz, and Laguna, and found there two establishments tolerably well conducted, but very inadequate to the wants of the people. In the new career now open to Spain, means may found be of developing in the Canaries, first, secondary instruction, next, the study of theology, art, science, and literature, in such a

manner as to satisfy local requirements without necessitating for the pupils a voyage to Europe. We also think that it would be as well to found a school of medicine in Teneriffe, as has been done in Madeira; we have no doubt that it would supply a public want, and attract numbers of invalids to the island.

And now we come to the oldest witness of the first ages of the earth, the Dragon: fable had animated it, poetry gave it a mission, medicine had made a panacea from it, history unrolled beneath its shade the various scenes of ancient invasions—Syrian, Carthaginian, Roman, Portuguese, Italian, and French; its red sap resembling blood, its sword-like leaves, its trunk resembling a serpent's skin, the mutilated stumps of its branches, rendered it the most extraordinary object in creation; botany has decided its age and species, and the fabulous dragon is turned into an asparagus plant, ten or twelve thousand years old. The hurricane has overthrown it, and its enormous crown now lies on the ground beside its still erect though hollow trunk; the guardian of the Golden Apples of the Hesperides is no more! Its memory will be for ever preserved by means of engravings, paintings, photography, science, and books of travel. The ruin deserves respect from the sons of the Conquerors who celebrated thanksgiving services and masses for the possession of the Islands on this trunk consecrated by paganism; their fathers made of the dragon a capitol, an altar, whence, as from a triumphal centre, the great artery of the island proceeded, and the territorial divisions allotted to the captains who fought and conquered in the magnificent valley of

which for twelve centuries it formed the glory and the ornament.

The existing population, credulous and superstitious like the Conquerors their fathers, could not shake off the clerical yoke, and for three centuries suffered from the disastrous consequences of the system established by the clergy. Ignorant credulity made the fortune of the priests and the misery of the Islanders; but these evils have passed away, and scarcely even the memory of them remains. The clergy can never regain their former prestige, even if the law permitted it, for the people are now as religious as they are, and far more enlightened.

After the Conquest, the priests blessed the land, and took possession of the best part of it, its riches and its political power, for they monopolised the civil power; undisputed masters of property and consciences, they virtually governed the Archipelago for three hundred years, fiercely disputing the prey among themselves; their struggles have enlivened our narrative. The governors were as docile as their subjects, and the clergy, absolute masters of all, and quiet possessors of three-fifths of the land, slumbered in idleness, ignorance, and even more degrading habits. Now, thanks to political progress, monasteries being abolished, and the clergy brought back to active life, they have resumed their place in the parish, and if they exercise there an influence over the masses which their superior intellectual endowments justify, yet this influence diminishes day by day. Let education be extended, then the clergy may honourably fulfil in the Islands their evangelic mission; in order to do so, let

them, follow Christ's precepts, let them keep aloof from politics and from civil administration—their kingdom is not of this world. Let them content themselves with guiding the consciences of their flocks: there lies their real strength and their sole mission.

The Canary Islands, near neighbours of Madeira, the most celebrated invalid resort in the world, think themselves capable of rivalling her; in our opinion, they may in some cases be even better adapted for this purpose, but they must still supplement Madeira. We examined the capabilities of Orotava, Puerto, and Santa Cruz. In the capital, during the four winter months, we found the warmth greater, the temperature nearly as equable, and the atmosphere drier than at Madeira; in Orotava, a delightful spring and autumn residence; in the north-eastern valley lovely sites and charming walks. We were forced to acknowledge that the comforts to be obtained are not what may be hoped for at a future time, but are still not to be despised.

We described the system of agriculture, the culture of cochineal, and the way the soil is prepared. Labour is remunerative, emigration has ceased, and public morality has improved. Irrigation used to be the exclusive monopoly of aristocratic society, it is now to a great extent made general. The system might still be improved, especially on the east side of Teneriffe, while in Canaria, irrigation being more easy is managed better. If, in consequence of progress in chemical science, the culture of cochineal should cease to be profitable, there can be no doubt that in five years the ground could be prepared

for other purposes, for the soil has already produced sugar-cane, cereals, vines, and cochineal, and would produce cotton, tobacco, coffee, and even tea, to-morrow; this country would produce anything.

We had before only examined the individual life of the Guanches, their manners and customs, we now had to examine their social life and their government. We witnessed the coronation of a king, religious festivals, wrestling-matches, the civil, military, and judicial systems. We described the agrarian and criminal laws, and the two great social divisions of masters and servants, or rather of masters and subjects. We found castes among the population: the royal family, the nobility recruited from the strong, the courageous, and the skilful; the priesthood, the vestals, the butchers, the embalmers, the warriors, and the shepherds. We saw the Guanches paying honour to the dead, and skilfully preserving their bodies; and we described the sepulchral caves; after classifying them ethnographically, we found in this primitive society the political and social customs and religious belief of the very earliest nations; this race belonging to the stone age gave us architectural proofs of its antiquity. Either pure Kelts, or partly Keltic partly Libyan, probably descended from the Caucasian Armenian branch, we saw the Guanches courageous like the Keltic races, believing like them in one God; we found in their language Keltic roots mixed with Semitic and Berber roots. A mystery which is perhaps unfathomable, but which would have been long ago cleared up, if any idea of the science of observation, of analysis, and of the philosophy of history had prevailed among the

priests; instead of which they were from their ignorance and prejudice possessed with a passion for annihilating everything, in order the more easily to derive the origin of the Guanches from the Israelites.

Language, music, and poetry had next to be studied. We endeavoured to be as cautious as possible while treating on these subjects, knowing how irritating is blame and how insipid is praise. We endeavoured to fulfil our task honestly rather than cleverly, saying what we conscientiously believed to be true, neither flattering nor depreciating. We think that from this chapter our readers will arrive at a conclusion favourable to the Islanders.

Mostly Andalusians, the present inhabitants are also descended from the Cantabri, Carthaginians, and continental Kelts, and they derive some primitive Keltic blood from the Guanches as well. This mixed descent has renovated the race, which is still finer in the Islands than in Andalusia.

It was absolutely necessary to show the reader what is the present organisation of the Government in the Canary Islands, and we did so, describing all that constitutes civil, judicial, and military proceedings, public works, national education, provincial and municipal administration, police, roads, the public health, &c. We finished this chapter while the revolution of September was preparing in Spain, and therefore we have suppressed the political remarks which followed, not wishing to lay ourselves open to the reproach of prophesying after the event.

We thought ourselves obliged to conclude by giving a general sketch of physical and natural science; we did so briefly and plainly. A few incomplete nomenclatures will give men of the world a sufficient idea of the sciences to which they relate.

In the form of a conversation we have promulgated some general ideas on the present state of Spain—a digression for which we beg the special indulgence of the public.[1]

And now that we have to take leave of our readers, it is due to them that they should know we undertook this work to help us to forget; we owe to it the mitigation of severe sorrows. Why publish it? The manuscript being sent to the printer we regretted what we had done, and we feel our own shortcomings so keenly that we prefer to remain anonymous.[1]

Madeira, April 20, 1869.

To Monsieur Sabin Berthelot, French Consul in Santa Cruz de Teneriffe.

You have devoted forty years of a laborious existence to the study of the Canary Archipelago, and greatly contributed to making the Fortunate Isles, your adopted country, known to the world by your great work, the fruit of great labour; you have raised an imperishable monument which leaves the works of all your predecessors

[1] This paragraph occurs in the original French work. To the English edition the author's name is attached.

far behind. Who may venture to treat of this subject after you?

He can do so who, preserving his incognito, has no desire of fame; he to whom you showed everything—your beautiful reliefs, maps, drawings, portfolios, and collection, permitting him to draw freely from your stores, with a generosity only too uncommon, and an almost fatherly kindness; he whom you were good enough to teach and advise during the whole time of his stay at Santa Cruz, devoting your valuable time to his benefit.

You encouraged me to write and publish this book, and now that I have completed the task attempted, I feel that if it be of any value, it is owing to you; thanks, then, my venerated master, thanks from the bottom of my heart.

May your happy old age be prolonged, and allow you to give France another valuable work on natural history; equal, surpass Moquin-Tandon, who was your friend and my master; it will be the consecration of the crowning point of your renown.

Accept, I beg, the deepest respect and gratitude, from

THE END.

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